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ART. I. *The Annual Address, delivered before the Medical Society of the State of New-York, at the Capitol, in the City of Albany, February* 8, 1826. By JAMES R. MANLEY, M. D. President of the Society.

GENTLEMEN OF THE MEDICAL SOCIETY,

BELIEVING that I am more indebted to your partiality than to my own desert for this opportunity of addressing you, I should feel no small measure of embarrassment, were I forbidden to presume upon the kindness which you have already manifested. Called to occupy a station which has been occasionally filled by the most distinguished medical talent in this country, it is the monition both of interest and of duty to accept it with diffidence, and to use its influence with discretion.

The medical community of this State, since the incorporation of this Society, whose business it is to supervise and regulate for the good of the whole the police of the medical profession, has assumed a more fixed scientific character than could have been reasonably anticipated for many years, without its agency. Without appearing to control, and without imposing any other restraints upon its members than such as commend themselves to the understanding and the conscience of every enlightened individual, it has silently but successfully operated such a change in medical education as cannot fail, if properly improved, to make the character of the phy-

sician honourable and respected. But much yet remains to be done. The progress of improvement must of necessity be slow, where philosophy has, at every step, to contend with ignorance and prejudice; and where, as in the medical profession, the pecuniary interests of a large majority of its members are best consulted by perpetuating them. No man can know precisely the measure of his own ability; his estimate may be, and no doubt sometimes is, correct; but when it is so, it is purely accidental: hence it is, that, for the most part, men of education are divided into two great classes; those who are distrustful of their own powers, and those whom vanity prompts to overrate them. Literary and scientific associations, by bringing various degrees of talent into collision, enable the possessors to correct that false estimate which their timidity or their confidence had formed, by showing them in relation; and the emulation of the young aspirant after distinction is so disciplined by the comparisons thus frequently instituted between himself and others, that assurance on the one hand, and an overweening modesty on the other, are made to give place to a well-tempered confidence, which is neither inefficient through fear nor offensive by its arrogance; and if the benefits which this Society has conferred were restricted to those arising out of this single circumstance, it could not fail to recommend itself to general patronage, seeing that the evidence is before the public. But it has higher, and I may almost say holier, objects;—objects in which all classes of the community, whether they realize it or not, have a deep and permanent interest: to it the law gives a controlling influence over the various medical associations throughout this State, and from it the people have a right to require the exercise of the most jealous vigilance in all matters relating to the education of their physicians; for to them, under Providence, are committed their dearest interests; and as in the whole catalogue of social duties there is none which involves more weighty obligations, so mere indifference to this object magnifies itself into an offence against society, which admits no apology, because the evils which it entails admit no reparation. I hope therefore to be excused, if, instead of read-

ing a paper on a particular disease or individual remedy, I occupy your time by some remarks on medical education and character, in so far as they are susceptible of improvement by legal provision.

The profession which we have chosen is one of awful responsibility: it puts in requisition, and gives continued employment to all the powers of the understanding, and all the kindly affections of the heart. The physician is not only obliged to be well informed, but his knowledge must at all times, be at command—not only to act with decision, when occasion requires, but to do ungracious acts, and such as will jeopardise his reputation if success should not attend the results; to be well furnished for his profession is not only his duty, but his deficiency is his sin; his ignorance is his crime: he is not only obliged to administer relief, but the relief must be extended in the best and speediest manner, and with the least possible suffering; and if any thing can render the duty still more arduous, it is the conviction, that his feelings must be so disciplined by his judgment as in no case to be permitted to control it. It is his exclusive business to shield from the dangers and assuage the pains of disease; to furnish the means which alone can give to life its enjoyment, or mitigate the sufferings which must inevitably terminate in death; and to give additional force to all these responsibilities, there are no human sanctions to enforce the obligations.—He who made him, and conscience his only representative, can estimate his deficiencies or rebuke his neglect: how important then,—how vitally interesting to the public, is the subject of medical education! and how essential is it, that its foundation should be laid in a deep and abiding sense of moral obligation!

The time was, when a moderate share of intellect, properly directed, was sufficient to insure to the possessor a large measure of reputation; but it must be remembered, that such reputation was but the halo created by the mists of ignorance which its industry was endeavouring to dispel. In the early settlement of a large part of this State, and till within a few years, it was not to be expected that either leisure or opportunity would be afforded to medical men to

improve their profession by reading or observation; the pressure of those ordinary avocations, so essential to their comfort in a new country, in a great degree deprived them of the privilege of study; and hence, with some few honourable exceptions, (among whom are some of the members of this Society) they were obliged to rest satisfied with the results of their own experience, and grow old in the tedious record of insulated facts, presumed to be extraordinary, because, from the limited range of their elementary information, they were difficult to be understood. But a new scene has opened upon us: the rapid progress of internal improvement, the spirit of commercial enterprise, the more general diffusion of wealth, and above all, the liberal patronage extended to almost every species of intellectual culture, have combined to dissipate the murky atmosphere which heretofore magnified every object seen through its deceptive medium. Character in medicine must now be measured by comparative standards, as in all other sciences; and precisely, in proportion to the facilities by which it may be rated, must the standard be elevated, in order to give to it the influence of example, or to excite our admiration. Genius and acquirement are now estimated according to their real amounts, and neither ignorance nor prejudice are permitted to distort their true proportions. A medical reputation, though in years past it might have been easily acquired, must now be maintained by severe application to study and industrious habits of observation; and those who fail in either, or who content themselves with their attainment, betray not only a neglect of the progressive improvements of the science, but a contempt for the intelligence of the public, which will not fail of its desert, whenever their claims to distinction are questioned.

It is necessary, therefore, that those who devote themselves to the practice of physic, should be fully educated, in order to warrant the expectation of acquiring character in their profession; and as an indirect stimulus to their exertions, they ought to be made acquainted with the difficulties which lie in their way, that they may not in disgust, when too late to retrace their steps, abandon the high road to honoura-

ble preferment, and study to compensate themselves for their disappointment, by converting the privileges they possess into mere trade-stock to accumulate wealth. It is a truth, which if not immediately obvious, experience will soon teach, that the path to wealth, if not to eminence, is best found in a spirit of worldly accommodation, which consults the prejudices rather than the reason of the multitude; for, however ignorant that multitude may be, (and they are not scandalized by being charged with total incapacity to judge of medical character,) there is not an individual of them who will not accept a deference to his opinions, as a compliment to his intelligence. It is also true, that the profession of physic addresses itself to the heart, rather than to the understanding—to the feelings, rather than the judgment; and that this is the fruitful source of much of the difficulty with which the physician must contend, in his pursuit of medical distinction. Sympathy with suffering makes a firm friend; hence the intelligent discharge of the obligations of duty are merely acknowledged or forgotten altogether, while a tythe-part of the services, rendered with apparent and officious interest for the distressed, is received with a gratitude which memory will always cherish. So universal is the operation of these principles, that the uninformed, the impudent, and the cunning, who *per fas aut nefas* become legally authorized to practice our art, make their advantage of them, to conceal their ignorance or to mask their hypocrisy; and they so admirably answer either purpose, that they are successful for both. He who has a well-grounded confidence in his ability, who scorns the petty shifts to which imposture in any form will resort, and who depends solely on the conscientious discharge of duty well understood;—with too much integrity to cherish the despondency, and too much candour to inspire a confidence which he knows must be disappointed, is prompted to leave the practice in disgust, and rely on the labours of the closet and the hospital to form his character; while the mountebank attains both wealth and celebrity by the abandonment of every thing which can give to the profession its excellence.

If these remarks are just—if the obligations of the physi-

cian are so numerous, and the confidence of the public so liable to be misplaced—if the difficulties he must encounter be so great, and his incentives to exertion are so small—if the temptations to neglect the great end of his vocation be so strong, and the restraints which the law imposes are so weak—it becomes our duty, so far as it is in our power, to correct this deceptive estimate of character, and to cherish the talents which adorn, and the morals which alone can give true dignity to the profession; while, at the same time, we guard with unceasing vigilance every avenue by which unworthy persons may enter, and possess themselves of its privileges. We are constituted, by law, the guardians of the public interests, in so far as these interests can be affected by medical education; and to what extent such responsibility reaches, I almost fear to say: let conscience answer.

Perhaps there never was a time since the organization of this Society, when the calls of duty were more imperative than at the present: the rivalries of the numerous schools for medical instruction, distributed throughout the country, many of them offering very limited courses of instruction—the neglect on the part of most of these schools to require from the candidates any evidence of proficiency in those studies which should form the ground-work of a medical education—the facilities with which degrees in medicine are obtained—the inducements offered to young men to enter themselves as pupils, while they are deficient in the elements of general science, which alone will enable them to study to advantage when their periods of pupilage shall have expired, and especially that mistaken liberality of our statute, which, while it gives full effect to the evils above enumerated, is calculated to perpetuate them,—all threaten to degrade and deprave the medical character; and, unless this Society suggest some decisive measures to arrest this wholesale manufacture of physicians, by more particularly determining the qualifications which shall admit to license in this State, the consequences must be alike disastrous to the respectability of the profession, and the interests of the public; since the law, in its present form, not only is evaded with facility in its most

wholesome provisions, but accords to every person the right to practice, who possesses a Diploma, no matter from whence derived, provided it be filed on record in any of the counties of this State.

It would scarcely be expected, that the rivalships existing among the medical schools, could be enumerated among the causes calculated to impair the medical character; but a little consideration will satisfy the most prejudiced, that they not only are, but that, so long as the emoluments of teaching depend on the number of pupils, they must continue to be of injurious tendency; unless the restraints of law shall be made to countervail their influence. If medical schools were all furnished with commanding talent in the teachers—if they all offered complete courses of instruction—possessed all those facilities for their illustration which are essential to a full education—required such terms of pupilage as are necessary to its acquisition—and if their rivalries were disinterested, except so far as the dignity and usefulness of the profession were concerned, they would be so many sources of gratulation rather than of serious apprehension. But experience has spoken a different language, and as it cannot be misunderstood, we are left without apology if we disregard her lessons. The strife among some of our schools appears to have been, not which should educate the best qualified physicians, but which should graduate the greatest number! And to so great extent has this ignoble emulation operated, that a college has been known to admit to degrees, at one commencement, the one-half of its whole amount of pupils; whereas in all well conducted schools the proportion is never permitted to exceed one *fifth* or one *sixth* part of those matriculated. If it be asked, whether this abuse be not inseparable from the multiplication of medical schools? I answer no; with the number of schools it has no necessary connexion: it is only when they are empowered to grant licenses, and when they exercise the power, under a strong temptation to relax discipline, and degrade the measure of requisition, for interest's sake, that the public have serious cause to be alarmed. The evil, however, is within the reach of remedy, and may be correct-

ed, either by changing the mode of compensating professors, in our various schools, so that the profits of teaching shall not exclusively depend on the number of pupils graduated; or by a positive law, which shall separate the license from the degree, and thereby render it simply a professional distinction: the latter is the corrective, most easy, most effectual, and has become essential. As college honours, those degrees when unmerited, could do no harm, further than to degrade the authorities which issue them; but as licenses to practice physic, they are causes of incalculable mischief: deprived of the privileges which the liberality of our law now accords to them, they would of necessity be less numerous, but their value would increase as their numbers diminished; since none but those who aspired to character in their profession would become candidates for a distinction which was purely academic, and conferred no rights, except such as could not fail to render them ridiculous in case their attainments did not warwant the certificate.

I am anxious that these remarks should at least exempt me from the undeserved censure of those who have heretofore thought that college honours should of right take precedence of county or state licenses, and shall therefore, though at the risk of being tedious, offer some of the reasons which may very properly be urged in favour of divesting the diploma of the privileges which the laws of this State, at present, accord to it. I am aware that there are those who will think, I am treading on ground that is hallowed, because enclosed by patents and prescriptions; and that I am trespassing on rights presumed to belong exclusively to colleges: but, convinced that a measure of this kind will elevate the standard both of the degree and the license, I cannot be deterred by any considerations of a personal nature, from performing what, under existing circumstances, is an act of imperative duty.—The degree of Doctor of Medicine is the highest honour known to our schools which is within reach of the student, however great may be his talents or application; it, therefore, claims to be considered as the best evidence of medical acquirement, and the surest passport to public confidence;

but when there is reasonable ground to fear, not only that they will cease to have these attributes, but that they actually serve, by the facilities with which they are clothed, to defeat the plain provisions of the statutes in relation to the right of license; then it becomes as much the duty of the Legislature, as the interest of the colleges to interpose their authority to correct the abuse.

Before the organization of this Society, and for a long time afterwards, the degrees of all medical colleges were simply considered as certificates of high attainment in the various branches of physic and surgery, and conveyed no right to practise those arts with a view to the emoluments of the profession. The graduate, notwithstanding this then flattering testimonial of his merit, was obliged to conform to the law of license to as full extent as if he never possessed it, although it might have been conferred by the most celebrated institution in Europe or America, or exercise the right merely by courtesy; and so indifferent were the first schools which were established in this country on this point, which is now viewed with so much jealousy, that no attempt was made to render the degree a license in law, till the year 1814, and then only in this State, and for the avowed purpose of building up and patronising an institution which had successfully rivalled and has since destroyed an older school established as a faculty in a college of arts.

I feel a confidence in recommending this measure, because I am persuaded that the regents of the university of this State, who alone grant the degrees on the presentation of the colleges, can with difficulty question its propriety, when the evidence on which it rests shall be fairly spread before them; and unless the personal interests of professors are permitted to stifle their higher obligations of duty to the public, they too will be constrained to acquiesce in its reasonableness. The beneficial effects of such a modification of the law, as would recognise this separation, would be immediately obvious from a view of the consequences which must of necessity follow. In the first place, it will restrict all colleges, not only those in this State, but, to a certain degree, those located in

other States who educate physicians who may settle in this, within their proper sphere, which legitimately extends no farther than to instruction:—it would destroy the inducements now presented to pupils, to resort to the schools to procure a license rather than an academic honour; and make it necessary that the candidates for these distinctions, should be fully furnished with the preliminary education which is essential to a good physician, and without which he cannot with facility comprehend even the technicalities of the science:—and as the great aim of every well-regulated school would then be, to acquire a reputation from the *quality* rather than from the *numbers* graduated, the diploma would become intrinsically valuable as the evidence of the student's proficiency. The license, stripped of those deceptive facilities which *keeping terms*, as it is called, presents, to tempt young men to shorten the period of their pupilage, contrary to the true intent and meaning of the act, would depend, as it should, more upon the actual duration of his studies than upon the evidence of attendance on lectures which may never have been heard; for it must be observed, that this evidence is neither more nor less than the professor's receipt for his fee, which is always required at the commencement of the course. The examinations, conducted by persons in no manner interested in the profits of teaching, and *only* solicitous that the profession should be honoured and the public served by the admission of the candidate to the privilege of practice, would be rigid, impartial, and satisfactory; and precisely in proportion as it was so, would be the promise of future usefulness. It would be idle to attempt to conceal what is already a matter of notoriety, and therefore I shall offer no apology for stating (and I do it without fear of successful contradiction) that the qualifications for a degree in some colleges of medicine are much less than those which the laws of this State require for license; on which account many are enabled to defeat the wholesome intention of those sections of our acts, prescribing the mode of education for the practice of physic, by possessing themselves of diplomas derived from schools *without* this State, and afterwards placing them on record in the counties where they

purpose to reside. This practice has grown into an abuse, which nothing but a repeal of that section of the act which gives to the diploma the rights of license, can effectually correct.

Apart from the pecuniary interest which public instructors may have in this question, which by the way ought never to be consulted when it comes in collision with public duty, there is but one objection which can be urged with any appearance of plausibility against its unconditional repeal, and I have accordingly anticipated it. It will be said, that to those who possess the degree, the right of practice will be accompanied by a mortifying condition, viz.—an additional examination. It is true, an additional examination will be required; but that it would degrade or disgrace any candidates, except such as would deserve such mortification, is an apprehension utterly groundless. Examinations have no terrors for those who are qualified; nothing so completely dissipates those fears, which their formalities are calculated to create, as the consciousness of preparation. Those alone, who are unqualified, need to dread the ordeal which tests their deserts; and perhaps, both the interests of the profession and the colleges themselves would be better served, if less pains were taken to dismiss those wholesome anxieties which stimulate the pupil to his exertion.

The separation of licenses from degrees appears to be the more necessary, since to the inordinate multiplication of them almost all the faults of early medical education are justly chargeable. The facilities with which they are acquired have already sensibly diminished their value as evidences of medical proficiency; and they must continue to have the effect, so long as gentlemen are graduated who are deficient in the rudiments of a good education. The fact, that as many if not more persons are admitted to these honours in one year, in the United States, than are admitted to the degree of Bachelor of Arts in all our colleges during the same period, speaks a language so emphatic, and in a tone of such serious admonition to all medical schools, that it is matter of astonishment that they have not, long since, taken decisive measures to

correct the impression which it is calculated to create; for the inferences from it are so obvious, that no argument can illustrate or sophistry obscure them. It is believed, that at least one half of the youth educated in our colleges apply themselves, after graduation, to mercantile and miscellaneous pursuits, and that the remainder is destined to fill the ranks of the three professions. If we allow that each receives an equal proportion, which perhaps is not very wide of the truth, it will follow, that no more than one sixth part of the whole number of graduated physicians have the advantage of a liberal education: and when we take into account the number of persons licensed to practise physic under the laws of the several States, which is presumed to be equal to those who receive the medical diploma, we have the mortifying result, that only one person in twelve of the authorized practitioners is furnished in like manner. A full education, at best, but enables the possessor to add to his stock of information without incurring obligations to teachers, and to this end it is always directed, when professional pursuits are the subjects of study; without it, the pupil must expect, at every step of his probation, to contend with difficulties which will retard his progress, and which, though they may diminish as he advances, will nevertheless always continue to be sources of embarrassment, tending to circumscribe both his usefulness and his reputation.

I know that there are those who, without this education, are fully competent to exercise any professional employment with credit to themselves and advantage to the public: there are those whose capacities for improvement, and whose thirst for information, are such as scorn the trammels of scholastic discipline; who can qualify themselves for any business, without creeping, at a snail's pace as they think, through all the forms of grammar-schools and colleges: these are gifted with powers which with difficulty acknowledge the restraints of instructors; they are nature's true nobility, whose patent heaven has registered upon their foreheads; upon whom genius has impressed her tower-stamp; and they would wear her livery and honour her service, be their avocations what

they might: but they are exceptions to all known rules; their number, too, is comparatively small, and if ten times multiplied, our profession would have no exclusive right to claim them as its members.

However much we, as individuals, may regret the injury done to medical degrees by the indiscreet or interested distribution of them, it is only as they affect the character of the license, and as they are calculated to defeat the intentions of the law of the State, that they interest us in our corporate capacity. But while I feel constrained to charge upon them so large a share of the abuse of medical privileges, I should do injustice to my subject were I to permit the evasions of the law in respect to the licenses themselves, as they are occasionally issued by the county societies, to pass unnoticed: those infractions it is true are not numerous, and they appear to have arisen more from the latitude of construction given to its provisions, than from a contempt of its restraints; still, as it is of the first importance that the law should not only be rigidly but impartially executed, they are proper subjects for the cognizance of the Society. At a previous session they claimed your attention, and it is presumed that, as they have lost none of their interest, they will continue to be objects of solicitude till corrected by statute.

It is not a matter of indifference whether or not the physician merits those privileges which the law of license permits him to exercise, because those privileges invest him with the power to do incalculable good or infinite mischief; and whether it shall be the one or the other, must depend entirely on his medical education, while those who must be the subjects of his skill are utterly incompetent to judge of its amount. In all other practical sciences, the intelligence of the community is sufficient to estimate the desert to which every individual is entitled, who makes a claim upon their confidence; the exhibition of their talents is a public exhibition, and the success of their labours is measured without reference to that stupid doctrine of fatality which is prone to confound all distinctions, whether of morals, intellect, or acquirement. In one essential respect our profession differs from every other;

the mistakes of other professional men can be, and almost always are corrected by the superior intelligence of its fellow-members; the evils of mal-practice or ill counsel in matters relating to property, for example, can at most but *delay*, they never can *defeat* the ends of justice, unless moral turpitude comes in aid of ignorance. Not so in the practice of physic: the errors of the physician, in few instances, admit of a complete reparation; in most, they permanently affect the suffering individual. The loss of all active usefulness, remediless disease, or a premature old age, whose duration is only measured by its wretchedness, too often are their sad results; and ignorance, apart from any moral baseness, can destroy both health and life, and, in their wreck, the social happiness of a whole community. There is no court for the correction of errors in the practice of physic, at least none which can afford relief to the unfortunate subject of an ill advised, or perhaps, under the circumstances of the case, a poisonous medicine: the most that may be expected (and this is far too much) is that the victim's misfortune may serve as a lesson to others equally unskilled in their profession, and teach them another truth of which it was always their sin to have been ignorant. There is scarcely any person whose experience is so limited as not to have presented evidence of the truth of the above remark: those who have witnessed the desolation of a wide wasting epidemic—who themselves have tasted all the bitterness of widowed hope—who have been called to inter in rapid succession every staff of their support, whether present or in prospect—and who, but for the anodynes which even protracted sorrow kindly furnishes to the distressed, would have drained the cup of unmingled wretchedness, and found their only refuge in despair, and there are some such—they know the immeasurable difference between a well-instructed physician, and one who merely values his vocation for the profits which it yields. There are times when the intelligence of the best informed is taxed to the utmost limit of its ability to arrest the march of disease, or suggest a remedy which shall avail to ward off the stroke of death; and when they do occur,

where shall the half-educated or the imprudent physician be found? "When the files of recorded fact afford no precedent:"—when, if they did, the disastrous issues which await a moment of indecision forbid a reference: when the impending gloom of the grave affrights from their wonted exercise the kindliest affections of the heart, and death, clothed with all the terrors which its realities possess and its fears can borrow, oppresses with heartless despair both the patient and his attendants:—then it is, that the intelligent physician stands, as it were, between the living and the dead, the honoured instrument of blessing, qualified alike to dispel the distracting doubts of friends, and to calm the anxieties of the suffering victim of disease; or, in failure of success, to justify himself before God, his conscience, and the sorrowing family: while the ignorant practitioner, affecting, for the first time, to have been made sensible of his deficiencies, contemplates in stupid amazement, the event which he can neither avert or control, and is *too* happy if peradventure he can solace himself with the reflection, that the distress which he witnesses he had no agency in creating.

But there is one other view in which the subject of education presents, which is peculiarly interesting. Other things being equal, those who are best educated are those who possess the best practical moral: the man of letters, for instance, is rarely found to indulge that mercenary disposition which lies at the foundation of almost all the petty vices which mar the pleasures and interrupt the harmony of social life. The first lesson of avarice is always taught by poverty, or the fear of it, and the second by pride; but its pupils are those who will learn nothing else so readily. The scholar, elevated above the reach of the one by his capacity to render himself useful, and building his hopes of distinction upon the powers of his mind rather than the influence of his wealth, is free to exercise the kindly sympathies of his nature without danger of rebuke from selfishness, although the price he pays for the satisfaction may ill suit his convenience; if peradventure he is in straitened circumstances, his poverty is without meanness; if otherwise, his affluence is without ostentation. It is

this generosity of temper, next to an intelligent discharge of duty, which renders the character of a physician estimable; without it he *may* be useful, but with it he *must* be respected; and if the virtues of humanity and charity are so necessary, it is important that his education should be such as will allow the fullest scope for their exercise.

As the improvement of medical science is known to be intimately connected with the happiness of society, and to depend almost exclusively on the measure and quality of education which the pupil receives previous to his admission to practise, it would seem superfluous to indulge in any further remark on this subject; although it must be confessed that the benefits to be derived from any changes in this respect, must of necessity be prospective. There are, however, other circumstances which affect the character of the profession as it now is, which claim your special attention. It has created no little surprise among all classes of intelligent men, that the interests of medicine should have received less protection from the laws than those of any other profession; and it is impossible that the public opinion should be mistaken, so long as the 20th section of the act, regulating the practice of physic and surgery, shall continue to extend immunity to every species of medical imposture. This section professes to be penal, yet the very terms in which it is couched defeat the end designed by its enactment. It provides a penalty for each and every breach of the law of license of which the party may be convicted, but prescribes a mode for its prosecution and recovery which renders the section completely nugatory. It is made the duty of the overseers of the poor to commence the suit, though no penalty attaches in case of their refusal; and their apology is not destitute of support. When required to prosecute, they answer, that it is inexpedient to apply the funds entrusted to them for the support of paupers, to defray the necessary expenses which must accrue whether the prosecution be successful or not; and as the uncertainty of conviction, and the still greater risk of not realizing the penalty, are with them matters of serious consideration, they prefer neglecting their duty to hazarding their trust-funds in attempts

to execute the law. This reasoning, however much it may be at variance with the good sense of that part of the public who duly estimate the importance of the medical license, finds an ample support in the first proviso appended to the section : its terms are, "*Provided, that the person so practising without license, who shall not receive any fee or reward for the same, shall be exempt from the penalty of this act.*" This clause, save one to which I shall presently refer, is perhaps, the most extraordinary provision which ever found a place in our statute book; it makes the penalty attach, not to the practice of physic without the evidence of proper qualification, but to the receipt of a fee therefor; it makes no account of the disastrous consequences of unlicensed ignorance, but seriously attacks the petty emoluments of its craft; it, in effect, punishes the *larceny*, while it acquits the *homicide!* The section, without this proviso, can serve no purpose in preventing quackery and imposture from battening on the credulity of the public, from the difficulties attending its execution : and with it, in place of being penal, it operates as a bounty; for he must be stupid indeed who, with its assistance, has not ingenuity sufficient to elude the penalty. If there be any serious intention to protect the public against the impositions so frequently practised by men who assume without warrant the character of physicians, the offence should be made a misdemeanour, to be prosecuted by indictment, and punished at the discretion of the court, within a reasonable limit of severity : nothing less than this offers the slightest encouragement to expect, that the nuisance can ever be effectually corrected.

If the remarks just made are warrantable, in what terms can I speak of the proviso which follows, in order to convey a correct idea of its injurious tendency? "*Provided also, that nothing in this act contained shall be construed to extend to debar* ANY PERSON *from using or applying for the benefit of any sick person any roots, barks, or herbs, the growth or produce of the United States.*" The first only intended to restrain unlicensed practitioners, who professed to be physicians; this patronises every pretender to the healing art, be his merits what they may, provided that he restricts himself in the choice

of remedies to those articles which are the growth of this country. The one presumes that "a *little* learning is a dangerous thing," and interdicts its exercise; the other grants a complete immunity to those who have *none at all;* and next to the downright slander, that the science of medicine is merely conjectural, and its practice a game at hazard—that it is an occult art which men in their distresses will consult, but in which none in their senses will confide—this last implies the most opprobrious censure. The notion that the congenital wit of a seventh son eminently qualifies him for the business of a physician, without the labour of thought or study—or that royal fingers, used like Perkins' tractors, are specific in the cure of scrofula—while they are wisdom in comparison, are not half so degrading to the profession. Those were prejudices, nursed by ignorance, in times when common sense was obliged, for conscience' sake, to do homage to the basest superstition; when it was a sin to be wise at all, and an aggravated offence to believe more or less than was set down: this is a serious enactment of an enlightened legislature, made less than thirteen years ago; and, as if to render it a still greater anomaly, it makes part of a law regulating the practice of physic and surgery!

It is not easy to assign a satisfactory reason for its introduction in the original law of 1806, unless, indeed, the difficulty of procuring any act for the regulation of the practice of physic was such, as to render this sacrifice to a most unreasonable prejudice, necessary. If so, though it has served its purpose, it must be confessed, the public have paid at a dear rate for the accommodation. The legislature of this State is, perhaps, as intelligent a body of men as any in this country, but in all large assemblies there will be some whose erratic course of conduct will render it a mooted point, whether prejudice or perverseness; a want of information, or a determination not to be informed, governs their opinions: we know that there are some, whose credulity by a strange fatality, appears to be inversely as the amount of testimony. Whether the influence of such will operate to an extent sufficient to prevent this scandal of the profession from being wiped from the statute

book, we cannot say: we can only hope the contrary. It may well be questioned, however, whether the records of legislation can furnish any thing to be compared with this offensive clause; for, view it in whatever light we may, it stands without apology.

To provide for the education of physicians—to settle the terms and courses of study—to endow and patronise schools for their instruction, and at the same time, dispense with all in favour of a set of men whose celebrity is known to be founded upon their avowed contempt of all information, other than that which (if it be to be acquired at all) savage life can best teach,—involves an inconsistency which the utmost ingenuity cannot reconcile. The untutored Indian may possess a knowledge of vegetables, which a habit of close observation may render, to a certain extent, efficient in the treatment of diseases incident to the hunter state, which are few and simple, precisely in proportion to the distance of its removal from a state of civilization; but to expect that the same remedial means will or can be successful in the condition of society in which we are placed, is scarcely less than absurd. If ever there was a law which required to be repealed, as much for the credit of those who enacted it, as for the benefit of those for whom it is presumed it was enacted, this assuredly is of that character; for it cannot be made consistent with itself without assuming as truths what no man of common sense will be willing to allow, viz.—that all these professors of a vegetable materia medica are *seventh sons*, or that the country produces *no poisons!*

It may be expected before closing this address, that I should say something in reference to the medical politics of the College of Physicians and Surgeons in the City of New-York, as I have taken a more than ordinary interest in them for the last six years, but more especially as they are intimately connected with the honour and dignity of the profession in this State. A detailed exhibition of the controversy, which has distracted that school, and which threatens to destroy it if not speedily adjusted, suits neither this place nor this occasion; though it is a subject of regret that it is not better understood:

but as such a sketch of its history as will enable the intelligent inquirer to compass its merits, can conveniently be given, without the necessity of entering into detail, I deem it my duty to present it.

The charter of the College of Physicians and Surgeons was granted by the regents to the physicians of New-York, on the prayer of their petition in March 1807, but it reserved to the grantors the right of altering and amending it in any, and every respect, as they should deem expedient. Before it had been one year in operation, that is, in March 1808, they resumed some of the powers granted, and took upon themselves the appointment of all its officers: during the three succeeding years, they altered and amended, removed and appointed so frequently, and it would appear so unfortunately, that, according to the report of the regents themselves, not less than five different interests were represented at their board, each of which prayed for changes; till, in order to terminate at once "all the feuds existing among the professors," they again amended the charter in 1811, revoked some appointments, made others, and limited the number of trustees to twenty-five, although they did not appoint them until the spring of 1820. In 1812, only one year after this, the regents, by virtue of their reserved right, (which had so often brought them into difficulty by making them the umpires of the conflicting interests of professors, for during all this time and for a long period afterwards we hear nothing of trustees,) abrogated this charter, and gave an entire new one, in which those mischievous words, *we reserve to ourselves*, happily found no place: it was gladly accepted, and the college took a new departure on the tide, not of successful, but of dubious experiment.—During all this time, and since the year 1792, there had been existing another school, established as a faculty of medicine in Columbia College. In 1814 the professors of the two schools united, and the faculty in Columbia College was abolished; whereupon the regents again, but *with consent* of the trustees of the College of Physicians and Surgeons, made another new settlement of professorships. The college from this time to the year 1819 went on without noise or controver-

sy, except such as might have existed within their own doors; for it had become, by the neglect of the regents to fill up the board of trustees to the number of twenty-five, in fact a concern of professors: they were a *majority, a quorum, a board of teachers, and a board of examiners,* with none to control them except the regents, and those removed at 150 miles distance, possessing no means of information but such as they themselves were pleased to furnish: and so it might have continued to this hour, had not the public become dissatisfied with the extravagant fees of tuition, which, in some cases, exceeded the authorized amount, as settled by regents, by sixty per cent.; and had not the profession taken alarm at the inordinate proportion which the number of persons admitted to the degree of Doctor of Medicine, bore to the whole number of pupils belonging to the school, which, at one commencement, was within a fraction of the one half, many of whom had not complied with the requisitions of the laws of this State.

In 1820 the Medical Society of the County of New-York and the Medical Society of the State presented these subjects, which had become matters of notoriety, to the regents as abuses; and the Medical Society of the County particularly, among other things, prayed regents to fill up the board of trustees with medical men resident in the city, in order that, as judges of medical propriety, they might correct what should be found wrong, and be readily convened for that purpose. The regents assented, vacated the seats of the non-resident members, and filled up the board, but permitted the professors to hold their seats as trustees.

Here the concerns of the college begin to assume a serious character. Hitherto their merits were confined, so far forth as regents were informed, to matters of personal interest among the professors; now the *public* had their representatives at the board, and the interests which they represented did not, in all points, accord with the views of professors; whereupon they who had agreed only to differ for the last ten years, now made common cause to resist the claims of the profession upon an institution which was emphatically a public one, and had partaken largely of its bounty. The new trustees, without for-

getting the courtesies due to gentlemen, although they were well satisfied that they had done all in their power to prevent their appointment, and particularly the appointment of such of them as were the petitioners for the change, made themselves fully acquainted with the condition of the college, and for a while contented themselves with suggesting improvements in the purest spirit of conciliation, in the hope that they would meet the views of the professors, and render unnecessary a further resort to the regents; and the school was conducted for a year or two in apparent harmony, nothing very material occurring to distract it, except an attempt on the part of professor to dislodge one of their associates, which was successful however, notwithstanding a majority of trustees were opposed.

The immediate causes of the difficulties *now* existing, between the professors and trustees, are, that the latter have withdrawn all their confidence from the former in the examition of candidates for degrees, and that they have been sedulous in their endeavours to improve the college finances. That they are perfectly justified in both these respects, will be manifest from the following facts:—It is necessary to premise, that candidates for the degree of Doctor of Medicine are required to pass several examinations, the first of which is always before and by professors alone, by whom they are recommended as qualified to appear before the board of trustrees, whose alone is the right to recommend to regents. In the winter of 1824–25, a suspicion was abroad that the preliminary examinations of professors were not so rigid and impartial as they should be; and as it had been industriously circulated among the students, that these examinations were the most important, and that those before trustees were merely formal; and great pains had been heretofore taken by professors to inculcate this belief, on which account the offices of four of them were filled with those pupils who expected to graduate the ensuing spring—the trustees determined that, as it was by charter made their duty to recommend, they would satisfy themselves of the candidates' acquirements, and that their examinations should no longer be examinations *pro for-*

ma. They were furthermore impelled to this course from the fact having come to their knowledge, that in several instances the law of the State had been grossly violated, and their confidence abused. It perhaps is needless to observe, that the resistance of professors to this measure, so righteous in itself, and now so imperatively demanded by the honour of the college, was ill calculated to produce the conviction that the change was unnecessary. Professors argued, that it was an innovation on established usage, for the examinations before trustees had always been *pro forma* merely. The trustees allowed it was so, and that it might have been proper, for that, under the former arrangement of the board, the examination was, in fact, held before the same men, the professors being the whole of their own board, and a large majority of that which recommended the candidates, and it was this vicious organization of it which induced the regents to change its character. The professors were obliged to submit, but they did it so ungraciously, that the whole school was in rebellion against trustees' authority. In order to prevent a repetition of the same scene, the trustees, by ballot, appointed a committee to draw up a memorial to regents on the condition of the college, and recommend such changes as they thought the honour and usefulness of the school required. It was done—the college convened to discuss said report and memorial—professors staid to hear it read, but in place of attempting reasonably to argue against its adoption, or even to amend it in any one particular, and in failure of success to enter their protest on the minutes to be transmitted to regents along with the memorial; they, as if by consent, all left the board and destroyed the quorum. The report, however, was at a subsequent meeting acted on, amended, and accepted by the trustees, and duly sent to the regents. It contained two essential recommendations, calculated in the opinion of the trustees, if adopted, to heal all differences by removing all causes of disagreement. The one had relation to finance, the other to the power of making their own by-laws. It was shown to regents, in that report, that the college was actually insolvent, if required and obliged immediately to pay its debts, notwith-

standing it had received from the State upwards of *sixty-six thousand dollars:* that a large part of its mismanagement was justly chargeable to the professors, who had been for a long time a majority and a quorum of trustees to transact all its business: that they had improvidently expended college funds, and even college credit, when these funds were a *minus quantity:* that while they, as professors, had been receiving from *ten* to *twelve thousand dollars* per winter for their *public* lectures; as trustees of the public bounty, they had permitted it to be exhausted in the payment of interest for moneys anticipated for their accommodation, and in expenses; to neither of which objects had they ever contributed one cent: so that, at last, they had become its creditors to the amount of *twenty-one thousand dollars*, about the just value of all its property. On all which accounts they prayed regents to compensate professors by salary, and take the surplus of tuition moneys to build up the college finances, and enlarge the school. The power of making their own by-laws appeared so reasonable and proper in itself, that it was scarcely urged except as a measure of convenience to regents. In all this not a single remark was allowed a place calculated to impeach the character of the professors as individuals. They however, in a great measure, escaped from the discussion of the questions at issue, by impugning the motives of the trustees, and charging them with hostility; whereupon the regents, in order the better to judge of the merits of the controversy, required both parties to appear before them on 29th March last. The result of this trial is now before the public.

The measures then recommended by a committee of regents, if successfully carried out, would have healed all dissentions, no doubt; but the college would have become, in fact, a private school, and the public finding that they had no interest in it, would have ceased to trouble themselves with its concerns. The measure then in contemplation was to remove all the trustees, except the professors, and fill their places with those who, however else they might be qualified, should be deficient in that especial particular which alone could fit them for the discharge of their duty—*they were not to be physicians.* The

doctrine of vested right now interferes, and those who were to be dismissed from their employment loaded with compliment, are still retained from necessity.

The regents now, with a solicitude which in a great degree redeems their indiscretion, send a special committee to New-York, who, after a patient examination of several days, frame an elaborate report, which is now before the public in a pamphlet form. Of the merits of this report it becomes not me at this time to speak; the burden of all its argument is to show, that trustees are *useful* as guardians of the college property, but *useless* as judges of medical acquirement; and whether the medical profession will feel themselves complimented by this decision from such high authority, is very questionable.—The merits of this college controversy, stripped of all personal considerations, resolve themselves into this single question: whether or not the patronage of this State should be knowingly devoted to the interests of a monopoly? The question, though simple as the answer is obvious, has been productive of much embarrassment to the regents, and has made them, against their consent, a third party in the dispute. The principle on which all public bounty should be dispensed, needs no illustration. When the legislature of a State patronise literary and scientific institutions, they, in effect, purpose to render their funds more productive by a transfer of them from one object to another; they never can, without gross neglect in their management, or sheer mistake in the investment, lose their interest in them; the property continues to be theirs, and like all other capitalists they have a right to require that their money should be farmed for their own account, and in no case diverted from its proper uses. It is in evidence, that the State bounty to the college has been mismanaged; and it is just as certain, that all the the evils which now distract the school have grown out of its vicious organization which favoured such mismanagement. The wonder is, that the only remedy which ever promised to be successful in healing the dissentions, is precisely that which the regents *will not* apply, viz.—the separation of the teaching from the governing powers, or the removal of professors from the board

of trustees. Here vested rights do not interfere, or if they do, the interest of the Professors would willingly waive them, rather than jeopardise the amounts which they receive for instruction. As the college now is, the professors possess (regents being judges) a monopoly: it remains to be seen whether the public will support it. The only privileged orders which the people of this country will tolerate, are the aristocracies of wealth and intellect—the former from necessity or interest—but the latter only from respect, and it must be a voluntary homage. A literary monopoly, therefore, is an anomaly which no human ingenuity could create, or, if created, no patronage could support; and any attempt to tread down the intellect, or stifle the enterprise of an intelligent community by patent privilege, must prove abortive of necessity.

Sedet, æternumque sedebit, may serve as the motto of a professor's chair in countries where public sentiment is controlled by patent; but we have a *chancery*, in this State, in public opinion, whose decisions are always according to truth—and if its judgment be not as summary as it is righteous, it is because of the delay in furnishing the testimony. To that power, whether they will or not, all must submit, and to it the medical profession cheerfully refer this controversy.

ART. II. *Contributions in Medical Jurisprudence.* No. I. By THEODRIC ROMEYN BECK, M.D. Professor of the Theory and Practice of Physic in the University of the State of New-York, and Lecturer on Medical Jurisprudence.

[Read before the Albany Institute.]

Of Insurance upon Lives.

THE uncertainty of the science of medicine is a subject of ridicule with superficial reasoners, and of deep regret among the enlightened and learned. The causes of it can be far more readily explained, than the means by which it is to be either remedied or avoided. On one point, however, all are

agreed—that an approach to stability in principles, and correctness in deductions from them, can alone be expected from a long series of patient, laborious, and philosophical investigations.

I am probably blinded by a partiality for a favourite pursuit, but I cannot avoid, in this place, expressing my conviction, that the study of the science of medical jurisprudence will, in some degree, aid in producing the very desirable effect just alluded to. Although the examinations required in it, must necessarily be detached—arising, as they do, from the occurrence of particular, and often peculiar, cases ; yet they as certainly must be both minute and comprehensive. When "life, property, or reputation are at stake," the medical witness who feels a due sense of his responsibility must needs view the subject, presented before him, in all its bearings, and understand all the *possible* phases under which it may occur. Even if he does not perform his duty, either through inattention or incapacity, subsequent examiners will pursue the inquiry, detect his fallacies or his ignorance, and, in process of time, establish a doctrine, or a principle, in which the wisest of the profession are disposed to unite. It is, in fact, the application of analytical reasoning to the science of medicine, in its best form and under the operation of the most powerful incentives. To those who have looked at the subject, a single allusion will be sufficient to illustrate and support all that I have said. How infinitely better are the *post mortem* signs of pregnancy understood at present, than they were before the trial of Mr. Angus.

I have ventured on these remarks, not so much as an introduction to the subject which I intend noticing in this paper, but rather as preliminary to a series of observations on various points in medical jurisprudence, to be continued in successive numbers of this Journal. We shall often have occasion to stop short at the most interesting parts, from a want of due knowledge, either as to facts or their causes ; but it is hardly possible to make any examination or analysis, without arriving at some useful deduction—and, if we cannot settle

the truth, we may, at least, indicate what is erroneous or deficient.

Among the more novel subjects in the science, that of INSURANCE UPON LIVES, is one of the most important. It is comparatively unknown in this country, and indeed has but very lately been broached in professional works. I propose to collect the scattered observations on it, with such cases as have occurred in courts of law.

It must be premised, that I do not intend entering on that part of the system of life insurance which relates to the probable duration of life under ordinary circumstances. This has been made the subject of minute, and probably accurate, calculation, founded on bills of mortality; and the directors of insurance institutions are guided by it in requiring premiums. Its investigation belongs rather to medical police, since the professional points to be considered are the *probable duration of life, and the causes either general or local that influence it.* But the questions, whether there has been concealment either fraudulent or otherwise, of the party's state of health—or whether the premium paid has (also in reference to the party's health) been grossly exorbitant—strictly belong to medical jurisprudence, since the testimony of physicians is almost invariably required to elucidate them.

"An *insurance upon life* is a contract, by which the underwriter for a certain sum, proportioned to the age, health, profession, and other circumstances of that person, whose life is the object of insurance, engages that the person shall not die within the time limited in the policy; or, if he do, that he will pay a sum of money to him in whose favour the policy is granted."* The nature of the agreement is such, that in proportion to the probability of the prolongation of the life, will be the smallness of the premium. *Annuities* are regulated on the same principles, and the only difference is, that here the person deposits the required sum at once, and

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* Park on Insurance, 6th edition, vol. ii. p. 571. For most of my references to law authorities I am indebted to Paris' and Fonblanque's Medical Jurisprudence, vol i. p. 381.

the company agree to pay a certain *annual* sum during his life.*

On all the points indicated by Mr. Park, such as the age, constitution, and health of the individual insured, the tendency of the trade, occupation, or profession, which he pursues, and his habits as to diet and regimen, it becomes the duty of the medical man to inquire and determine. It is the custom with the insurance offices in Great Britain, and doubtless also in this country, to refer the applicant to some professional man, well acquainted with his constitution and habits, or who, in other words, has been his medical adviser. Facts may be thus elicited, which would render an insurance improper according to their rules, or, at all events, tend to increase the premium. In addition to this, as will be seen by a reference to the advertisements of the companies in question, medical officers are appointed for the special purpose of examination, and the party (if it be practicable) appears before them. The leading object of inquiry necessarily is, whether he labours under any disease, and particularly one which tends to shorten life; whether his habits are temperate or not, and his employment unhealthy or dangerous.†

"With respect to the risk which the underwriter is to run, this is usually inserted in the policy, and he undertakes to answer for all those accidents to which the life of man is exposed, unless the *cestuy que vie* put himself to death, or he die by the hands of justice." Hence these are generally excepted in policies; and it must also be added, that, in certain cases, the premium is special, and subject to particular arrangement, such as exposure to risk by long voyages, or by military service, and residence in unhealthy climates.

Policies on lives are *vitiated by fraud or falsehood as to the health of the insured.* Hence, as I have already remarked, if this be charged, the physician may be called upon to give testimony. The few cases stated in the English law

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* Smith's Forensic Medicine, 2d edition, p. 516.

† Ibid. p. 517.

reports, relative to this point, are deserving of particular notice.

It has been decided, that "even when there is an express warranty that the person is in good health, it is sufficient that he is in a reasonable good state of health; for it can never mean that the insured is perfectly free from the seeds of disorder. Nay, even if the person, whose life was insured, laboured under a particular infirmity, if it can be proved by medical men that it did not at all, in their judgment, contribute to his death, the warranty of health has been fully complied with, and the insurer is liable."

"Thus in an action on a policy made on the life of Sir James Ross for one year, from October 1759 to October 1760, *warranted in good health at the time of making the policy;* the fact was, Sir James had received a wound at the battle of La Feldt in the year 1747, in his loins, which had occasioned a partial relaxation or palsy, so that he could not retain his urine or fæces, and which was not mentioned to the insurer. Sir James died of a malignant fever, within the time of the insurance. All the physicians and surgeons, who were examined for the plaintiff, swore, that the wound had no sort of connexion with the fever; and that the want of retention was not a disorder which shortened life, but he might, notwithstanding that, have lived to the common age of man; and the surgeons who opened him said, that his intestines were all sound. There was one physician examined for the defendant, who said, the want of retention was paralytic; but being asked to explain, he said, it was only a local palsy, arising from the wound, but did not affect life; but on the whole, he did not look upon him as a good life."

Lord Mansfield, before whom the case was tried, observed—"The question of fraud cannot exist in this case. When a man makes insurance upon a life generally, without any representation of the state of the life insured, the insurer takes all the risk, unless there was some fraud in the person insuring, either by his suppressing some circumstances, which he knew, or by alleging what was false. But if the person insuring knew no more than the insurer, the latter takes the risk. When an in-

surance is upon a representative, every material circumstance should be mentioned, such as age, way of life, &c. But where there is a warranty, then nothing need be told; but it must, in general, be proved, if litigated, *that the life was in fact a good one; and so it may be, though he have a particular infirmity.* The only question is, *whether he was in a reasonable good state of health, and such a life as ought to be insured on common terms?* The jury, upon this direction, without going out of court, found a verdict for the plaintiff."*

In a subsequent case, the same rule of decision was recommended and enforced. The material points were: That an insurance had been effected on the life of Sir Simeon Stuart, Bart., from the 1st of April 1779, to the 1st of April 1780. The policy contained a warranty that he was about fifty-seven years of age, and in good health on the 11th of May 1779. He died within the year. The warranty of health was contested; but it appeared in evidence, that although Sir Simeon was troubled with spasms and cramps, from violent fits of the gout, he was in good health when the policy was underwritten, as he had been for a long time before.

Lord Mansfield, in commenting on the testimony, observed—"*Such a warranty can never mean that a man has not the seeds of a disorder.* We are all born with the seeds of mortality in us. A man subject to the gout, is a life capable of being insured, if he has no sickness at the time to make it an unequal contract."† The plaintiff obtained a verdict.

The following case is more recent than either of the above. It was an action brought by the executors of Dr. Watson, deceased, against the *Equitable Insurance Office*, to recover a sum which had been insured on his life. Upon the trial of the cause at the Sittings, in 1813, the office resisted the demand, on the ground that when the policy was effected, the

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* Park on Insurance, vol. ii. p. 583. *Ross* v. *Bradshaw.*

† Park on Insurance, vol. ii. p. 584. *Willis* v. *Poole.* "To avoid these questions, it is the practice of the Insurance Offices specially to name gout, and some other disorders, in the inquiries of the usual medical attendant of the party insuring."—Paris and Fonblanque, vol. i. p. 384.

deceased had, in breach of his declaration to the contrary, a disorder tending to shorten life, and that the policy was therefore void. For the plaintiff, it was proved by an eminent physician of Bath, to whom Dr. Watson had applied for advice, that his disorder was an affection of the bowels; that the disease may proceed from either of two causes—the one a defect of some of the internal organs, the other a mere dyspepsia; that the first would tend to shorten life—that the second, though it renders the patient uncomfortable, does not generally, unless it increases to an excessive degree, tend to shorten life; and that the complaint with which Dr. Watson was afflicted, was not the *organic dyspepsia*. Several other medical men stated that they had attended Dr. Watson since the policy had been effected, and that he was then quite free from the disorder. On the other hand, several medical persons stated, as witnesses for the defendants, that they had seen him at the time of his visiting Bath, previously to effecting the insurance, and that they had considered him as a falling man. It was left to the jury to decide whether the patient's complaint was the organic dyspepsia, and if it was not, whether the dyspepsia under which he laboured was, at the time of effecting the policy, of such a degree, that by its excess it tended to shorten life. The jury found that it was neither organic nor excessive, and gave a verdict for the plaintiff.

An application was afterwards made to the Court of Common Pleas to set aside the verdict and have a new trial, on the ground, that since the insured afterwards died of the same disorder which he had before effecting the policy, that circumstance was conclusive proof that he was then afflicted with a disorder tending to shorten life.

Mr. *Justice Chambre* remarked—All disorders have more or less tendency to shorten life, even the most trifling; as for instance, corns may end in a mortification: that is not the meaning of the clause. If *dyspepsia* were a disorder that tended to shorten life within this exception, the lives of half the members of the profession of the law would be uninsurable.

The application was refused.*

One case, illustrative of the species of testimony that will invalidate even the certificate of a medical man, will close my references to the English cases.

A person named Aveson, insured the life of his wife, *then warranted to be in good health*, on the 9th of November, 1802, to be paid the sum of *L.*1500 within three months after her death. She died on the 29th of April, 1803. The payment of the above amount was contested at the Lancaster Assizes, before Baron Graham, on the ground that she was not in good health at the time of making the policy. "On the trial, the surgeon who gave the certificate swore positively to his belief of her good health on the 9th of November, though before he was a stranger to her; and stated that he observed her very minutely on that account, and formed his opinion from an examination of her general appearance, her pulse, complexion, and other circumstances, and principally from the *satisfactory answers she gave to his inquiries.* On the part of the defendants, much evidence was given to show that the plaintiff's wife was in a settled habit of immoderate drinking, so as to have affected her health at the time of the insurance, and rendered her life not insurable. The principal question, however, arose on the evidence of one Susannah Lees, who being an intimate acquaintance of Mrs. Aveson, called accidentally upon her in November 1802, soon after her return from Manchester, where she went to obtain the certificate of her health, on which the policy was afterwards effected, and found her in bed at 11 o'clock in the forenoon. Mrs. Aveson then said she was very poorly; that she had been to Manchester the Tuesday before, and that her husband had been insuring her life; that she was not well when she went. And she spoke in a faint way. It was then objected by the plaintiff's counsel, that what she said was not evidence. But the learned judge admitted the evidence, considering that what the

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* 4 Taunton's Reports, 763. *Watson* v. *Mainwairing.*

surgeon, called on the part of the plaintiff, had sworn as to the state of health of Mrs. Aveson, was in a great measure founded on her answers to his inquiries, and as in general any opinion of the state of health of a person must partly be formed on the account which such person gives of his complaints. The witness then proceeded to state, that Mrs. Aveson then told her "that she was poorly when she went to Manchester, and not fit to go; that it would be ten days before the policy could be returned, and she was afraid she could not live till it was made, and then her husband could not get the money." The whole case was afterwards left to the jury, whether, from the evidence of Mrs. Aveson's habit of excessive drinking, as proved by the defendants' witnesses, they were satisfied, *that at the time of the insurance the mischief was actually done, and her constitution then radically impaired, so as not to be a good life within the meaning of the warranty;* and the jury being of that opinion, found a verdict for the defendants."

The plaintiff applied for a rule granting a new trial before the Court of King's Bench, on the ground that the evidence of Mrs. Lees, as to the conversation which Mrs. Aveson held with her, was improperly admitted, being no more than evidence of hearsay of the wife against her husband. But after an elaborate argument, it was unanimously decided by Lord Ellenborough and his associates, that the evidence was admissible, to show her own opinion, who was the best judge of the fact, of the ill state of her health at the time mentioned; and application was accordingly refused.*

I shall conclude this paper with the narrative of a case which some years ago excited great interest in France. It belongs to the second division of our subject, viz. whether the premium paid (for an annuity or insurance) has, in reference to the person's state of health, been grossly exorbitant; modified, however, by the peculiar provisions of the French law.

Article 1974 of the *Civil Code* enacts, that "a contract for an annuity on the life of a person who died the same day on which the contract was signed, is void."

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* East's Reports, vol. vi. p. 188. *Aveson* v. *Lord Kinniard and others.*

Article 1975 extends the same provision *to the case of a person affected with a disease, of which he died within twenty days after the passing of the contract.* It is to this last that the case is particularly referable.

The Sieur Fried, residing at Strasburg, and aged upwards of sixty, sold, on the 11th of March, 1809, a large sum in the funds for the purchase of an annuity on his own life. He was, at the time of the bargain, and had been for ten years, afflicted with hemiplegia, in consequence of an apoplectic seizure, and he died on the second day, after signing the contract, of an attack of apoplexy, excited by an altercation. The question was, whether M. Fried, on the day on which he signed the papers, was or was not already under the influence of the disease to which he fell a victim thirty hours afterwards; or, in other words, whether the ten years' hemiplegia and the apoplexy did not constitute one and the same disease?

The following is an abstract of the testimony presented. A hairdresser deposed that he had dressed M. Fried for upwards of two years, who, during that time, had been repeatedly seized with apoplectic attacks; that Fried had for a long time been paralytic of the right side, and was obliged to write with his left hand. The day after the new year, the deceased suffered a severe attack of apoplexy, and this recurred several times till his death. His strength gradually failed, so that he was unable for some time to go out and pay his usual visits.

Dr. Schweighœuser stated that he had long known Fried, and that the paralysis arose from an attack of apoplexy. He did not, however, attend him professionally until March 1808, when he was called in consequence of an attack of apoplexy. He treated him for ten or fifteen days, and left him as well as he was before his illness. In January 1809, he was called a second time. This yielded readily, and he attributed both to slight indigestion. In March, however, he found, on being summoned, that the attack was more serious; stertorous breathing was present, and death soon followed. On inquiry, he ascertained the immediate cause of this last seizure to have been a violent fit of passion.

Some of M. Fried's servants deposed that his mind was impaired, particularly since January; that he walked and spoke with difficulty; that his hearing was affected; and that the attacks of apoplexy were very frequent, sometimes one every two days.

On the other hand, Lacombe, a notary, stated that early in March he had a conversation with Fried, as to the contract which he was about making, and received his directions thereon; that his mind appeared sound; nor did he seem ill, but walked about and sat down apparently with ease. Other witnesses agreed that his intellect was unimpaired.*

The case was, by order of the court, submitted to the examination of the professors of the faculty of medicine at Strasburg. In two reports made by members of that body, it is unanimously agreed that Fried was affected with the disease of which he died, on the day of signing the contract. The arguments advanced may be stated as follows:

Apoplexy, independent of the symptoms which constitute the attack, has certain precursory symptoms, as well as concomitant and subsequent ones. To the last belong hemiplegia, affected senses, weakness of mind, &c. All, however, are referable to the same cause. Apoplexy may be styled the acute form of the disease, and palsy the chronic; and from the slightest excitement, as passion, for example, the chronic will suddenly become acute. They in fact only differ as to the degree of intensity, and hemiplegia always terminates in a fit of apoplexy. It is also remarked as a sound maxim, that a disease is not removed until the symptoms characterizing it have disappeared; and the professors apply it to the present case, by observing that hemiplegia is one of the principal elements of apoplexy.

M. M. Baumes, Vigarous, and Delpech, professors at Montpellier, and M. M. Chaussier and Desgenettes, professors, and

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* The above case, with every thing relating to it, is taken from a work entitled, "*Rapports et Consultations de Medecine Legale, réceuilles et publiés par J. Ristelhueber, Docteur en Medecine, médecin en chef à l'hôpital civil, et médecin cantonal a Strasbourg, &c. &c.* 8vo. *Paris,* 1821."

Marc and Renauldin, physicians, at Paris, to whom the case was also submitted, were of the opposite opinion. Their consultations are given at full length in the work which I have quoted.

The Montpellier professors remark, that apoplexy is a disease which attacks the system suddenly and violently; and as it is very common for one complaint rapidly to change into another of a different nature, so paralysis may supervene on apoplexy, and yet have nothing in common with it, except its being a consequence: that the ten years' hemiplegia had not impaired the powers of M. Fried, since during that period *he married twice, and by the second marriage had a daughter.*

The best authors not only separate these diseases, but regard the latter as remaining after the first has entirely ceased. Paralysis is a consecutive and permanent state; apoplexy, a primitive and temporary one. As to paralysis being an element of apoplexy, this would be to suppose that there could be no apoplexy without paralysis, while the contrary is undoubtedly true; and Lieutaud is quoted expressly in favour of this. And it is also urged, that paralysis arises from many other causes besides apoplexy.

The professors also totally object to the idea of acute and chronic forms of these diseases; and even if allowed, they insist that they must radically differ from each. How ridiculous, say they, would it appear, to assert that Fried laboured under apoplexy for ten years. The pre-disposition to a disease, which has been somewhat insisted on, does not carry with it the idea of its actual presence. Many causes may annihilate the pre-disposition; and even if present, a foreign cause, as in this instance, may be necessary to excite the complaint. The case of a family is supposed, who are pre-disposed to gout, but in whom it does not appear until after the age of fifty. Are they, before that time, to be called gouty?

The precursory symptoms are deemed doubtful, as they often indicate the approach of other diseases; and in the case of M. Fried, the attacks appear to have been slight (except the last), and indeed rather carus than apoplexy. The hemiplegia also appears to have been far from violent, as many of his

bodily and intellectual faculties remained perfect. The last attack was not spontaneous, but accidental, and a fit of anger would have produced it, without the presence of paralysis.

The opinion of the Parisian physicians is elaborate and able. They observe that palsy consists in a lesion of the nerves of motion and sensation; apoplexy, in a suspension or abolition of sense. Hence different organs are necessarily affected in each. There is no such disease as chronic apoplexy, since death must follow a prolonged attack; but paralysis may occur in three ways, independent of apoplexy, as from compression, section of nerves, &c.; as an *avant-courier* of apoplexy; and lastly, and most commonly, as a consequence of it. Was it the latter in this case; and if so, is the consequence of a disease the disease itself? The remark, that symptoms must be removed before the complaint can be considered as cured, does not apply here. He had no symptoms of apoplexy; and the different attacks of it, so far from proving a continuity of the same disease, indicate the contrary. Every seizure is an independent affection, arising from a particular organic derangement, and this derangement must recur, in order to produce a second. How then can paralysis be called chronic apoplexy?

The mind of the deceased, from the most intelligent testimony, appears to have been sound. Even those, who question it, rather speak of loss of memory, than of the mere essential functions being impaired.

The professors conclude by giving their opinion—1, that Fried was of sound mind when he made the contract: 2, that he was predisposed to apoplexy at the above period; and 3, that the fatal disease did not exist at the indicated time, but was excited by an occasional cause, operating on the predisposition.

From grave consultations, prepared in the closet and submitted to the legal tribunals of the country, the controversy was transferred to the medical journals. An anonymous critic, in the *Journal General de Medicine de Sedillot*, attacked the opinion of the professors at Paris. He insisted, that there was a fixed apoplectic habit in this patient, evidenced by the

repeated attacks of the disease. Dr. Marc replied, and Sedillot rejoined. I do not find much that deserves repetition, except the remarks of the latter, that paralysis is an *epiphænomenon* (a super-added symptom) of apoplexy. The latter is barely cured; and hence a difference is clearly established, which tends to weaken the arguments before adduced. The effect of a disease requires curative treatment, while the predisposition only calls for preventive. Dr. Sedillot also illustrates this case by a reference to successive attacks of hæmoptysis and to repeated paroxysms of epilepsy, and its resembling complaints. In all these, the complaint is one and the same. He therefore concludes—1, that Fried died of a disease produced by the same cause that excited the first and second attacks: 2, that the fit of anger only acted as a purely accidental excitement on the pre-existent apoplectic habit: 3, that he laboured under this disease when signing the contract.

A few words, from one of the editors of the *Bibliotheque Medicale*, closes the discussion in favour of the distinction between paralysis and apoplexy. In the latter, says he, the number of symptoms is reduced, and their intensity diminished.

Dr. Ristelhueber has collected all these papers in the volume which I have quoted; and, at the conclusion, reviews the controversy in an able and dispassionate manner. He inclines to the side of the Montpellier and Paris professors, and observes, that if the opposite opinion was true, Fried could not have made a contract during the last ten years of his life. The essential symptoms of apoplexy, he insists, had disappeared—and the individual ceases to be apoplectic, but remains hemiplegic. Even if the idea as to the identity of cause (which he denies) be correct, still it does not always exist—or, at least, is not always active—and it did not show its presence on the day of signing the contract. His conclusions are—1, that Fried died of apoplexy, excited by anger—and thus from a cause different from that which produced the first attack: 2, this fit of anger was an occasional and determining cause, operating on the predisposition to apoplexy, and

converting his infirmity into it; and 3, that the disease was not present on the day of signing.*

I am unwilling to protract an essay, already too far extended, and at the same time would gladly avoid the imputation of giving a flippant or cursory opinion in this case; but I must express my decided belief, that the Strasburg professors were right. I will appeal, in confirmation of this, to a work which contains the collected wisdom of ages on these diseases, and refer particularly to the chapter on Hemiplegia in Dr. John Cooke's *Treatise on Nervous Diseases.* No man can, I imagine, arise from its perusal without believing that, in the case before us, the apoplectic attack was a symptom—a consequence of the hemiplegia, unconnected, if you please, with the first attack of apoplexy, but certainly a natural result to be expected and predicted (particularly after the first of January) from the state of the patient.

To return, however, to the subject of insurance. The facts, on which general rules should be founded, are few, and they do not lead to the desired object—or, at least, only partially. More knowledge is required, and it is to be hoped that some of the medical men, who for years have acted as officers in insurance companies, may hereafter favour us with the result of their observations. The following remarks, with which I conclude, would seem to incline otherwise; but I trust the difficulties indicated will, in process of time, be overcome. "A full treatise on the relations of medicine to insurance contracts is still a desideratum in medical jurisprudence, and it is rather singular that the subject has not yet been investigated,

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* Orfila, in his *Lecons de Medecine Legale*, 1823, (vol. i. p. 455,) notices this case. He does not give a very decided opinion either way, but speaks highly of the talents of Ristelhueber in the controversy. An *analogous* instance, adduced by Orfila, would, I think, rather weaken than strengthen the arguments of R. It is that of a person seized with hæmoptisis, of which he recovers. Nineteen days thereafter, he has another hæmorrhage and dies. Would this vitiate a contract under the article of the French code? Orfila thinks not. I only say, that if it would not, I cannot imagine a case which would, excluding, of course, acute diseases; and with these, it is evident that fraud would hardly be attempted.

considering the vast capital that is invested in insurance companies. Perhaps, however, such an inquiry would not be for the interest of the partners of these companies. It is well known that some of them have been long drawing most enormous profits—a fact that can hardly be reconciled with the flattering professions they hold out to the public. The causes of their success (so far as medical inquiry might enlighten the subject) seem to be, in the *first* place, that the probability of life, was, at the outset, underrated, and that little allowance has been made for its increasing improvement: *secondly*, that while the mortality is taken from the average of all lives, good and bad, a premium is required for all bad lives; many such are refused altogether, and no drawback is allowed upon a vast majority of insurances, in which the life is better than the average; and *thirdly*, that the tendency of many diseases to shorten life has been much overrated. It is this last point, chiefly, which requires to be illustrated by medical investigation; but, we fear, too many difficulties lie in the way, and especially where there is an almost total want of facts on which to found precise enough conclusions."*

Note.—Since concluding the above paper, I have met with another law report, which may be added to those already quoted, as illustrative of the rules laid down in courts of justice on the various points which constitute a full disclosure of the condition of the individual insured.

It was an action on a policy of insurance, subscribed by the Albion Insurance Company, upon the life of Elizabeth Swayne. Upon the trial of the cause, at the Sarum spring assizes in 1815, before Justice Dampier, one defence was, that there had been a fraud in effecting the policy, by the suppression of a fact which the contract required the assured to disclose. E. Swayne had been for many years resident in a house of her own in the parish of *Fisherton Anger*, but was, in December 1813, a prisoner for debt in the county gaol in *Fisherton An-*

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* Edinburgh Med. and Surg. Journal, vol. xix. p. 615.

ger, and then employed Mather to effect an insurance upon her life with the defendants. One condition of the insurance was, that a declaration should be made of the state of the health of the life insured; and Mather, reciting that he had proposed on the behalf of E. S. of F. A. an insurance on her life, which had been accepted,—the declaration then followed and declared, that E. S. did not exceed the age of sixty-six years, and that she was then resident as above. It was stipulated that the policy should be valid, only if the statement were free from all misrepresentation or reservation. For the purpose of ascertaining the state of her health, Mather, by direction of the defendants, called in a physician, who found the subject in the gaol, which is in a situation perfectly healthy, confined in a large airy room and well calculated to preserve the health of its inhabitants. She was apparently about sixty years of age, a fresh looking healthy hale woman, making allowance for her confinement; "for confinement (says the reporter *very gravely*) makes some difference in the state of health." He certified, that she was in good health, and he would have noticed, in his certificate, the fact of her being in gaol, but he was led to suppose that Mather was an agent of the defendants, as he talked of "*our office*," and therefore thought every thing would be communicated to them. Upon this evidence, Justice Dampier thought, that Mather had, by contrivance, prevented the physician from stating a fact to the defendants which he thought material to the contract, and he therefore stopped the plaintiff's case, and, without hearing the defendant's case, directed a nonsuit.

An application was now made to the Court of Common Pleas for a rule *nisi* to set aside the nonsuit and have a new trial. The Judges, however, observed, that they had examined the documents, and there was nothing express in the terms of the policy which required the imprisonment to be stated—nor was there an omission of the statement of any matter which the office called for; nevertheless, if the imprisonment were a material fact, the keeping it back would be fatal; but it ought to have been submitted to the jury, *whether the omission of the*

fact relied on was or was not a material omission; and therefore there must be a new trial.*

Albany, March 8, 1825.

ART. III. *Observations on Puerperal Fever; being the substance of an Introductory Lecture delivered at the Western Medical College, Fairfield, (N. Y.) November* 1825. By WESTEL WILLOUGHBY, M.D. Professor of Obstetrics and the Diseases of Women and Children in the University of the State of New-York.

THE cause, nature, and treatment of puerperal fever have divided and distracted the opinions of physicians in every age, while the result, as to practice, has been highly injurious. It is a disease which claims great attention from its violence and its unyielding nature; and none, in proportion to the numbers that have sickened, has more completely set at nought the skill of the physician, and lessened the pride of the healing art.

If we consult the various writers on it, from the earliest period down to the present time, we shall find all (with a few modern exceptions) agreeing as to its uncertain nature and its fatality.

Like other destructive fevers, it has proved most fatal in confined situations, such as cities and lying-in hospitals. In the latter, it has not been uncommon, during some seasons, for every parturient woman, seized with the disease, to become its early victim. So emphatically has this been the case in the Hotel Dieu of Paris, and in the lying-in ward of the Royal Infirmary of Edinburgh, that one of the learned professors of the latter city has been induced to declare it incurable.

But we need not go abroad for evidence to prove the fatality of child-bed fever. There is scarcely a physician in

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* *Huguenin* v. *Rayley*, (1815,) Taunton's Reports, 6, 186.

our own country, who has practised beyond a few years, that has not witnessed its desolating ravages.

During the autumn of 1789 and the winter of 1790, puerperal fever was epidemic in most, if not all, of the New England states. In many parts of Connecticut and Massachusetts, its severity clothed the inhabitants in the habiliments of mortality.

In Berkshire (Mass.), where I then resided, there was not, I believe, a single well marked case during 1789, that did not destroy the patient; and in 1790, two out of three shared the same fate.

At this afflictive period, I was studying my profession—and never can I forget the distressing and heart-sickening scene. Mourning and lamentation were to be seen and heard in every neighbourhood, while the most desponding melancholy was perceptible in the countenance of every pregnant female.

The wife of my preceptor became the victim of this unsparing disease. Physicians lost all confidence in their remediable means, and considered the fever as necessarily and unavoidably fatal. Had they never been undeceived, this belief might have afforded them some consolation; but at a subsequent period, autopsic examinations and a change of treatment, severally taught them their former mistaken pathology.

I have often witnessed the lacerated feelings of my preceptor, while speaking of his mistaken views of the nature and treatment of this epidemic. I have often heard him declare, that had he attended properly to one effort of nature, to wit, a diarrhœa which very generally came on within forty-eight hours after the commencement of the disease—and encouraged this salutary discharge by the use of cathartics, instead of suspending it by opiates and astringents, he would have saved some of his patients, and especially his own wife.

But the great prostration of strength—the frequency of the pulse—the disturbed respiration—brown tongue—the morbid and highly offensive excretions, and the rapid termination of the fever in death—led the physicians to consider the disease

as only a modification of putrid or malignant fever. Under this impression, they were very careful not to add to the debility, or to impair the vital energy of their patients. Laxatives, mild sudorifics, demulcents, anodynes, and antiseptics, constituted their principal remedies.

So impressed were the medical men, of that day, with the belief that the fever was of typhus type, and the patient became the victim of nervous irritation and a putrid diathesis, that they overlooked the most conclusive pathognomonic symptoms of its inflammatory nature—such as tension, great pain and exquisite tenderness of the hypogastric region—symptoms that I have always found present in a greater or less degree. These, when united with the appearance of the pelvic and abdominal viscera on dissection, would seem to be sufficient to carry conviction to the most skeptical, of the phlogistic nature of puerperal fever.

Having seen this fever in its sporadic and epidemic forms, I am compelled to believe, from what I have seen and experienced in my own practice, that the fatality of this complaint is more owing to mistake as to its pathology, than to the incurable nature of the disease. This opinion would border too strongly upon arrogance, were I not abundantly supported therein by the sentiments of the ablest and more experienced physicians of the present day. But in saying this, I would not, by any means, be understood that I consider this fever always to be under the control of medicine; for it is with this, as with every other violent disease; many cases are beyond the reach of art—yet I do believe, that if early and judiciously treated, by far the greater part of women labouring under it would recover.

With these introductory remarks, we will proceed to notice the subject under consideration, and in order to communicate my ideas more understandingly, I will, *first*, notice those changes which take place in the female directly after parturition, and those circumstances which render her system peculiarly liable to febrile excitement; *secondly*, consider those predisposing and exciting causes, which have been supposed to be operative in producing child-bed fever, and also the seat

and nature of the disease; *thirdly*, notice the symptoms which characterise this state of fever, and the mode of treatment which has been found most successful; and *lastly*, give a history of some cases, that shall illustrate our views of the fever, and enforce the practice we wish to inculcate.

During the whole period of gestation, the parts contiguous to the uterus suffer more or less from the pressure of that organ, and especially so in the last months; the arterial circulation of the hypogastric region is diminished, while the venous blood from the inferior extremities is retarded in its return. When this pressure is removed, the flow of blood is suddenly increased and freely discharged by the uterine arteries, constituting the lochial discharge.

Within from twelve to thirty-six or forty-eight hours at most the lochial discharge abates, while there is, at the same time, a determination of blood to the mammæ, in order that they may be enabled to perform their nutritious function. We thus find two altered determinations of the blood—the first sudden and rapid—the other slower; and it is this disturbance in the balance of circulation that, in the opinion of some, produces those temporary fevers, denominated ephemeral and milk fevers, to which women are subject after their confinement.

The process of parturition is a natural one; yet every case is attended with some difficulty, referrible to those wise precautions which nature has taken to counteract the evils which result from the erect attitude of the body. There is, therefore, in labour a resistance to be overcome, and a power capable of overcoming that resistance. The resistance will be in proportion to the size of the head of the child, or relative smallness of the pelvis and the rigidity of the soft parts, while the powers employed to overcome the resistance and to force the passage of the child, are the actions of the uterus and abdominal muscles.

In the expulsive efforts of these organs it not unfrequently occurs, that the lower segment of the uterus is protruded into the cavity of the pelvis along with, because covering the head of, the child; and in this way or situation, is squeezed by the head of the child and the sides of the pelvis. Considering these

circumstances, and many more that might be mentioned, it will appear evident that many causes of violence or injury to the uterus and the peritoneum covering it, as also to the lower part of the bladder and its peritoneum, will be applied during a natural labour.

Long continued action of the uterus exerted upon the body of the child, can hardly happen without inconvenience, and the violent pressure made upon the soft parts and the impaction of the head, will farther add to the chance of injury. Besides these, improper interference with the progress of labour, and the injudicious and unnecessary use of instruments, have too often added to the danger of the woman subsequent to her delivery.

Thus we see that the parturient female is left in a situation that renders her system more than ordinarily susceptible to the influence of febrile causes. It is an uncommon thing for a woman to die during the time of labour; yet that process, under the most favourable circumstances, occasionally lays the foundation of diseases, which come into action after delivery, endangering and sometimes destroying the life of the woman. If the labour has been preternaturally severe, or is rendered so by unskilful management, the subsequent danger is greatly enhanced; and, therefore, we must not be surprised that so many women become the victims of disease after their confinement.

2. There is scarcely any subject respecting which pathologists have given more discordant opinions, than the one relative to the predisponent and exciting causes of puerperal fever; and this dissonance of sentiment has applied equally to the nature and the treatment of this distressing disease.

Some believe the fever to have a specific origin, and when once produced, to become highly infectious, and, not unfrequently, to be carried by the accoucheur and nurse from one patient to another. Drs. Armstrong, Young, Haighton, Gordon, Good, and some others of less note, support this opinion. Mr. Hey believes, if it be contagious, that it is only so in hospitals or lying-in wards, and observes, that if it be a modification of typhus or gaol fever, he "sees no reason why it

should not frequently communicate a putrid fever to persons not in the puerperal state, which I have never known to happen."

Dr. Hulme, in his Treatise on Child-Bed Fever, says, "it is not an infectious disease, any more than the iliac passion or pleurisy, a nephritis or an inflammation in any part of the body." Other experienced physicians agree with Dr. Hulme in opinion, while some writers speak on this point with great doubt.

So far as I have had an opportunity of witnessing the fever, I have never found reason to believe in its infectious nature. The most reasonable conclusion, as to the predisponent cause of it, appears to be, that it depends upon atmospheric influence, whenever it prevails in its epidemic form.

Some certain, yet unknown state of the air, operating on the system of the pregnant female, produces a susceptibility to this peculiar kind of febrile excitement; and during this pre-disposition she passes through her parturition, which produces much corporeal as well as mental agitation, greatly disturbing the circulation, increasing the irritability, and leaving such impressions upon the uterine system and its contiguous parts, as to become the exciting cause of inflammation and its attendant fever.

It is no objection to this hypothesis, that we cannot collect and analyse this atmospheric poison; that it is not tangible, or that it cannot be brought within the focus of vision, or distinguished by its taste or smell. Who can tell why this season should produce cynanche parotidæa rather than the measles, or why the measles should have prevailed last season instead of this? Who can say why the epidemic typhoid pneumonia should have commenced its destroying ravages in 1811 instead of 1810?—why it should be almost exclusively confined to the States of Connecticut and Vermont during the winter of 1811—visit New-York in the winters of 1812 and 13—then pass to the south, and prevail in the middle States in the years 1814–15, and finally terminate its fell career in the south-western and Atlantic States in 1816–17—or why it should be

a winter instead of a summer disease? This wide-spreading and desolating epidemic, no one will pretend to deny, owed its origin to atmospheric influence, although we cannot determine its peculiar nature, or its insidious mode of operation.

Mr. John Hunter was of the opinion that the disease proceeded from an injury of the peritoneum, or some irregular action of the uterus. He observes—"Sometimes puerperal fever proceeds from a want of disposition in the womb to recover itself after labour, by which the peritoneum, as a cavity, must necessarily be affected. At other times, from a too sudden emptying of the abdomen, whence the peritoneum cannot always recover itself, so as to be properly adapted to its new condition." When the inflammation commences in any given point of the peritoneum, says Mr. Hunter, it most frequently spreads over all the cavity of the abdomen. An extravasation of fluids takes place in that cavity, mixed with pus. The different viscera adhere by their peritoneal coats. The intestines are distended with air, and the irritation thus induced soon kills the patient.

Neither of these two causes can produce any thing like epidemic puerperal fever—because like causes, under similar circumstances, must produce like effects. In every labour, one of these causes more or less obtains, and the other very frequently; still puerperal fever seldom happens, in proportion to the whole number of labours: and Dr. Good justly observes, that with these local causes there must co-operate a peculiar temperament, or a peculiar condition of the body at the same time, in order to produce this state of fever. The co-operating cause, he conceives, is generally to be traced to some constitution of the atmosphere.

Drs. Darwin and Gordon believe puerperal fever symptomatic, and originating from an erysipelatous inflammation of the uterus, its appendages, and their peritoneal covering; and it is certainly worthy of notice, that in many instances of prevailing child-bed fever, there has been at the same time an erysipelatous diathesis present.

Dr. Clarke, in his Treatise on Puerperal Fever, observes, that erysipelatous inflammations prevailed at the same time. Dr.

Gordon, in his treatise on the child-bed fever of Aberdeen, observes, that "the erysipelas commenced with the puerperal fever; that they kept pace together; both arrived at their acmé together, and they both ceased at the same time." Mr. Hey, in his work on the puerperal fever of Leeds, observes, that "erysipelatous inflammations prevailed during the whole period of the fever; and in many cases, were of a very malignant kind, insomuch that I do not recollect ever to have seen worse cases of erysipelas than at that time."

In 1807, the puerperal fever and erysipelatous inflammations prevailed together in this county, and in those north of it. In 1821–22, and the early part of 1823, the disease prevailed over a large district of country, but there was less of it in this county than in some others adjoining. In the same period of time, I have never known erysipelatous inflammations half so common or obstinate: the phlogistic diathesis was so intense, as to require early and copious blood-letting, and other depleting remedies.

The primary seat of diseased action in this disease, has been much less the subject of dispute than the nature of the disease itself. Post mortem examinations have already presented nearly the same results. Dr. Clarke found a large quantity of serum in the cavity of the abdomen, while the peritoneum covering the uterus and intestines were more or less covered with coagulable lymph, and below this the parts were seen inflamed. Drs. Denman and Kirkland consider puerperal fever as originating most commonly in the uterus. Drs. Hulme and Leake found the omentum and intestines chiefly affected, but especially the former. Dr. Gordon says that the peritoneum and all its productions are equally and indiscriminately affected. In two of his three dissections, not only did the peritoneal covering of the uterus partake of the general inflammation, but its substance was enlarged, and the right ovarium (that in which impregnation had taken place) was found in a state of suppuration. In the third case, the disease had been almost subdued by the evacuations employed, and the appearance of inflammation was consequently

slight; but the right ovarium was enlarged, and was approaching to a state of suppuration.

In one of the earliest accounts which we have of an epidemic puerperal fever, the uterus is said to have been affected with inflammation in common with the stomach and intestines, and the ovaria to have frequently suppurated. Mr. Hey says, that in the epidemic puerperal fever of Leeds, the uterus was the seat of disease; that it was enlarged, and showed an exquisite sensibility on pressure even at the very commencement of the disease. Dr. Conquest, a celebrated accoucheur to the London Lying-in Hospital, and one of the latest writers on midwifery, observes, that it is excessively absurd to speak of puerperal fever except as a symptom of local disease; that it is evidently an inflammation of the uterus or peritoneum, and the name should only be used as intending to express the constitutional disturbance produced by such inflammation.

Much more testimony might be adduced in support of this opinion as to the seat and nature of puerperal fever, if it were necessary. I may truly add, that I have never seen a case unaccompanied with local inflammation, and that great soreness and tenderness in the hypogastric region is, in general, among the first symptoms.

3. After thus noticing the cause, seat, and nature of puerperal fever, we are to consider the symptoms and mode of treatment.

Though the puerperal fever has been described under many varieties, yet its leading features must be allowed to have a great similarity in most, if not all, of the descriptions given of it. The disease, as I have seen it in the epidemic form, is strikingly analogous to the same complaint as it prevailed in Aberdeen and Leeds, so admirably described by Dr. Gordon and Mr. Hey in their treatises.

"This fever," says Dr. Gordon, "was not peculiar to any particular constitution or temperament, but promiscuously seized women of all constitutions and temperaments, the strong and the weak, the robust and the delicate, the old and the young, the married and the single: those who had easy, and

those who had difficult labours, were all equally and indiscriminately affected."

In Leeds the fever commenced at first among women in the higher ranks of life, but soon descended from the palace to the cottage, and affected alike all classes of parturient females.

Such has been the case in this country, wherever it has appeared in its prevailing character; no child-bearing female could say that she was safe against its deadly grasp.

The period at which this fever makes its attack is not uniform: there are well authenticated cases on record, where the fever has commenced before labour, and again, weeks have passed by before the attack. Such cases, however, are out of the ordinary course of the disease. The most usual period of its commencement, so far as I have been acquainted with it, is from forty-eight to seventy-two hours: it has much more frequently taken place within forty-eight hours after the confinement of the woman, than otherwise. Dr. Denman says that the usual period is on the third or fourth day after delivery. At Leeds, the fever generally commenced within forty-eight hours; and this was also the case at Aberdeen. Mr. Hey says, that in one case he thinks the fever made its attack within seven hours after delivery; and in another, it appeared to come on gradually after the confinement, without any marked period of attack.

Having seen and treated the puerperal fever frequently, I shall describe the symptoms as I have formerly noted them down, without any particular reference to authorities.

This disease is usually ushered in with a rigor, or shivering fit; to this succeeds heat, more or less intense, as the cold stage has been of longer or shorter duration. When the heat or fever subsides, a sweating comes on, more or less diffused, and generally profuse, accompanied with severe pain and tenderness in the hypogastric region. The pain is steady, seldom remitting, and always increased by pressure on the abdomen. Sometimes, however, the pain remits, and even intermits. In such cases it returns with increased severity, resembling those severe pains which take place after labour, known by the name of after-pains, and by the incautious have

frequently been mistaken for them. So common and severe were these pains in the Leeds epidemic, as to be considered one of its certain diagnostics. In one case of a poor woman, says Mr. Hey, the neighbours were so fully persuaded that a second child was left in the womb, that they came to request my assistance in the delivery.

The pulse, from the commencement, is found greatly accelerated, and sometimes at first is hard and full, but as it increases in frequency, it loses its fulness, but not its tenseness. Within several hours after the attack, the pulse, which at first was 100 or 110, is generally found to have increased to 120 to 140.

Pain of the head, vertigo, and ringing of the ears, are not uncommon attendants on puerperal fever. During the remission of feverish heat, the countenance is pallid, and expressive of great anxiety. The surface, for the most part, is hot and dry; but occasionally a profuse perspiration breaks out, which is most generally confined to the head and chest, but sometimes is diffused over the whole surface. When this is the case, the skin becomes cool and pale. The tongue, at first, is white and moist, somewhat furred, and occasionally there is a dry list along the middle. We would not, however, suspect the intensity of the disease from the appearance of the tongue.

If the puerperal fever makes its attack before the secretion of milk, that function does not take place; and if the secretion has been established, the milk soon disappears, and the breasts become flaccid. The lochial discharge in general is much diminished, and very frequently suppressed altogether, but in some instances it continues more or less during the complaint. In bad cases, the stomach is soon drawn into consent, and nausea and vomiting are among the first symptoms; but more commonly they intervene, at an advanced state of the disease. The bowels at first are generally confined, requiring large doses of purgatives to free them; but the sooner these are given after the attack, the more readily do they operate. Before the termination of the disease, a spontaneous diarrhœa almost invariably ensues, sometimes accompanied with tenesmus, and the stools are dark-coloured and highly offensive.

The thirst is more or less intense, the patient frequently calling for cold water, or sub-acid drinks. The excretions are all of them diminished; the urine is small in quantity, turbid, high-coloured, and frequently voided with pain. The sensorium at first is little affected, the intellectual faculties remaining good, until near the fatal termination. In a few cases which I saw in 1807, there was slight coma, and temporary wanderings of the mind; but whenever the patient was roused, she would answer distinctly any question put to her. The blood, when drawn within twenty-four or thirty-six hours after the attack, has invariably given evidence of the inflammatory nature of the disease. Its surface has been covered with a thick coat of a coagulable lymph, while the crassamentum was remarkably firm.

The symptoms, as I have mentioned them, have been very uniform in their appearance, during the earlier period of puerperal fever, as I witnessed it in the autumn and winter of 1807, 1811, and 1812, and so far as my recollection serves me, of 1790 and 1791, but of the last years I have no memorandum.

Although circumstances produced variation in the symptoms, yet the fulness, tension, great soreness of the hypogastric region, and increased frequency of the pulse, were never absent, even at the commencement of the complaint.* In those cases, which I examined *per vaginam*, I found the uterus did not contract and subside into the pelvic cavity, as is usually the case after delivery, but remained higher up in the hypogastrium, forming a distinct tumour over the pubis. It was

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* "To the younger part of the profession," says Dr. Campbell, "I would offer a diagnosis, for this disease, which for simplicity they cannot mistake, and for accuracy will stand the test of experience, by which alone we should be guided.

"When a practitioner, therefore, meets with a puerperal patient, labouring under acute fixed pain in the lower parts of the abdomen, aggravated on pressure; or a general soreness of the abdomen rendered more acute by pressure, accompanied with frequent pulse, hurried respiration, and much uneasiness on turning to either side in bed, he may rest assured that such a patient is affected with puerperal fever."

remarkably sensible, and on pressure the most exquisite pain was felt.

If the disease was neglected, or improperly managed, or not relieved within ten or twelve hours, the swelling was no longer confined to the hypogastric region, but extended itself over the whole abdomen, greatly increasing its volume, while the enlarged uterus became hidden in the general tumefaction. This soreness and swelling of the abdomen produced much difficulty in respiration, and obliged the patient to lie constantly on her back. If she is not immediately relieved, the disease pushes on rapidly to a fatal termination. The pulse becomes much more frequent, and sometimes too rapid to be distinctly counted—the tongue is dry and brown, and the teeth and gums are covered with sordes—the cheeks become flushed with a livid hue—the countenance wild and expressive of agonizing distress, and the whole body is covered with a clammy sweat. The pain and soreness of the abdomen at this period greatly subsides, and the patient only complains (if she complains at all) of pains in her sides, back, and chest, which originate from the distention of the abdomen. Spasms occasionally supervene, with a kind of suffocated respiration; the patient becomes very restless; vomiting and diarrhœa ensue, and large quantities of a dark viscid and highly offensive matter is thrown from the stomach and bowels.

At this period the patient becomes comatose—is occasionally more or less delirious—the sweats are profuse: hiccups, involuntary stools, and cold extremities, are the usual harbingers of dissolution, and the melancholy scene is generally closed within a few days from the commencement of the disease.

Considering this disease as I now do, and always have done, to be an inflammation of the uterus, or its peritoneal covering, or both, and the fever altogether symptomatic, the treatment, which I have adopted and still pursue, will be easily anticipated. With the lancet and purgatives I have been able to combat it with more than ordinary success: without them, as I have seen the disease, I should not expect to cure a single patient. Those who consider the disease primarily ty-

phus, have never tried early and judicious depletion; and those who have believed the complaint to be inflammatory at first, but rapidly running into typhus, have restricted themselves so much in their debilitating means, as to render their practice of little worth.

I do not make these assertions hastily or without due consideration, but as the result of my sincere belief after close investigation; and to show that this opinion is not made up without evidence, I will quote a few lines from one of the many who believes that puerperal fever is always a form of typhus. Mr. Walsh, in describing the symptoms of this fever, observes—"The pain, after a few hours continuance, became so severe, that the generality of the patients lay on the back and could not bear the weight of even the sheets; and in one woman, who was attacked soon after delivery, the pain was such as to deprive her of the power of distinct articulation, so that she lay uttering a hideous uninterrupted cry, but totally incapable of answering any question."

Notwithstanding these conclusive diagnostic signs of inflammation, yet this author, and others like him, forbid the use of the lancet, fearing (as they say) the typhoid nature of the disease. While humanity weeps over such mistaken pathology, we should be thankful to heaven, that a more propitious day dawns upon the science of medicine; and that an Armstrong, and other enlightened pathologists, have unveiled the mystery that obscured the nature of typhoid diseases, and exposed the destructive effects of stimulating remedies when injudiciously administered.

Having mentioned the lancet and purgatives as the sheet-anchor of hope in this fever, it will be unnecessary for me, in this place, to notice the auxiliary remedies, as they will appear in the cases which I shall shortly detail. I will, therefore, first notice the practice that has been found successful in the hands of the latest and best writers.

"The method which I found most successful (says Dr. Gordon) was copious bleeding soon after the attack of the disease. But this did not answer the end, unless it was performed early and in large quantities. When I took away only ten or twelve

ounces of blood from my patient, she always died; but when I had courage to take away twenty or twenty-four ounces at one bleeding, in the beginning of the disease, or within six or eight hours thereafter, the patient never failed to recover. After bleeding it was my practice to give some active purgative, on purpose to bring on a diarrhœa, which, when excited, I found necessary to continue through the whole course of the disease, till it was entirely conquered; and it is a matter of the utmost moment to prescribe such purgatives as will operate with all possible speed." "I found," says Dr. G. "that most dependence was to be put in calomel and jalap—three grains of the former, and two scruples of the latter, were mixed with the conserve of roses and made into a bolus, which I always administered immediately after bleeding. After this, a purging mixture was given, in such proportions as to produce five or six motions every day, without intermission for the first three days of the disease; after which I diminished the dose, but still continued the medicine till the disease totally ceased." Dr. G. gave his purging bolus as a preventive to the disease the day after delivery, and observes, "that all to whom it was given escaped the fever, except one."

Under this bold and energetic plan of treatment, Dr. Gordon saved all his patients; whereas, under a less efficient one, he lost them all, and that too during the same season and the same epidemic.

It seems that Dr. Denman became a convert to the liberal use of the lancet, in his more advanced years; and the earlier and later sentiments of this distinguished physician are worthy of particular regard.

In his earlier treatise on puerperal fever he observes, "After the most careful observation, the event has so often proved to me that large bleedings weaken the sick, without proportionably lessening the disease, that I have, for a long time, never taken away blood in any quantity. I had," he continues, "very early my doubts regarding the propriety of bleeding in general, in this disease, and am still of opinion, that it is not the most natural, safe, or effectual remedy in this

fever." Subsequent experience, however, taught him his mistake, and in the character of a noble and independent mind, he not only relinquished an error, but publishes his confession of it for the benefit of mankind. He observes, in his latest essays on puerperal fever, "I am now convinced by manifold experience, that my reasoning was fallacious and my fears groundless, and that what I had considered as proofs of the insufficiency or impropriety of bleeding in the inflammatory puerperal fever, ought, in reality, to have been attributed to the neglect of performing it in an effectual manner, in the very beginning of the disease."

Dr. Armstrong differs very little in his views of puerperal fever from those of Dr. Gordon. He considers it in the first stage as violently inflammatory, and meets it at the threshold with the lancet and purgatives. He uses calomel much more freely than Dr. G. with a view to its alterative as well as purgative effect. This distinguished physician has thrown more light on the nature and treatment of these fevers, usually denominated typhus, than any writer I have ever read. His treatise should hold a conspicuous place in every medical library.

Dr. Conquest in his late work, when speaking of the treatment of puerperal fever, observes, that every means, that is calculated to diminish the energy of the arterial circulation, should be used without delay. Bleeding, local and general, must be our sheet-anchor, and the quantity to be withdrawn should be regulated exclusively by the activity of the symptoms. This important remedy, continues he, is not adequately appreciated, because it is not usually employed so *liberally* and *early* as it should be. In but few cases will it be prudent to take away less than thirty ounces, and this quantity should be drawn within the first twelve hours of the complaint, or it will rarely subdue this formidable inflammation. The exclusive object of a judicious practitioner will be to allow the blood to flow quickly from a large orifice, until temporary collapse of the system is manifested by fainting, and he will not be influenced by that *simulated debility*, which is the consequence of oppression, and which so often misleads the unwary. In addition to the opening of a vein in the arm, blood may be

withdrawn from the loins by cupping-glasses, and from the uterine region by leeches.

Purges, says Dr. Conquest, are next in importance; not mild, but a full dose of the submuriate of mercury and jalap is preferable, and the operation of these may be assisted by purgative and emollient glysters, the best of which are made by a combination of about an ounce of soft soap with a pint of gruel.

These are the directions of the present teacher of midwifery at, and physician accoucheur to the City of London Lying-in Hospital, for the treatment of puerperal fever. This practice, a few years ago, would have been considered by most physicians as little, if any, short of madness, yet it is the only one that has ever been crowned with success.

Before I close my observations upon this important subject, permit me to add the authority of two other distinguished modern practitioners, relative to the propriety of the treatment which I have recommended.

Dr. Good observes that, in the treatment of this disease, the inflammation must be subdued, and that speedily, or the patient will perish, and hence abstraction of blood and calomel purgatives are the arms on which we have chiefly, if not solely, to depend, and both must be employed decidedly and to as great an extent as we dare venture.

Mr. Hey in his most excellent treatise on the child-bed fever of Leeds, which commenced in the autumn of 1809 and prevailed in 1810 and 1814, acknowledges that he was led into a most fatal mistake as to the nature and treatment of this disease, from which he did not recover until he had lost twelve out of fourteen of the first patients he was called upon to treat: that he was led to believe it, from the opinions of reputable writers, as well as from the rapid course and fatal termination of the disease, to be typhoid in its nature, and only to be managed by aperients, mild cathartics, anti-emetics, anodynes, and antiseptics. He had, however, closely watched the operation of his medicines, and had observed, that in proportion to the dejections from the stomach and bowels of his patients, were they relieved and life protracted.

From this circumstance he was induced to change his practice, and give the purgative plan a fair trial; and while executing this, he received Dr. Gordon's treatise on the puerperal fever of Aberdeen. This induced him, at once, to yield his scruples relative to the impropriety of blood-letting, and the early abstraction of large quantities of blood was now united to his purgative treatment, with the most consoling and happy effect.

Under this practice, thirty-four out of thirty-six recovered; and of this number, says Mr. Hey, the last thirty afforded no instance of failure in the treatment.* At the close of his treatise he observes, "I have employed blood-letting in this disease to a greater extent than any practitioner, with whose writings I am acquainted, and have hazarded the opinion, that the quantity of blood is scarcely to be limited, but by the removal or considerable diminution of the pain; but let it be remembered, as a necessary appendage to this opinion, that the period for bleeding is confined to an *early*, though not a very definite, stage of the disease."

4. The fatal effects of the stimulating plan of treatment adopted in 1789, and the partial good effect of the purgative one which was followed by my instructor in 1790, had made too strong an impression on my mind to be effaced; so that the first cases of puerperal fever which I was called upon to visit, were treated as inflammatory, and with success. But these were sporadic cases, and more easily managed than when the disease appears in its epidemic form. It was not until the winter of 1806 and the summer and autumn of 1807, that I had an opportunity of again seeing this disease in its prevailing character; and it was at this and subsequent periods, that I noted down the symptoms and progress of the disease.

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* The lecturer, in this place, quoted two cases from Mr. Hey's work, illustrative of the modes of treatment pursued by him at different periods of his practice. As his treatise has been republished in this country, and the cases are of considerable length, it is not thought necessary to quote them in full. They were cases 6 and 14.

I do not, at this time, recollect the extent of the epidemic, neither can I find among my memoranda, made in those years, any evidence that will enable me to state it—yet I well remember, that it prevailed more or less in the northern part of this county, the eastern and northern section of Oneida county, and that district of the Black river country which now composes the counties of Lewis and Jefferson.

It had proved fatal in several instances before I had an opportunity of witnessing a case.

On the 6th of February, 1806, I was requested to visit Mrs. B. labouring under puerperal fever. She was attended by Dr. C. a worthy and respectable physician, and from him I learnt, that she had been confined on the first instant—that her labour had been strictly natural and more than ordinarily favourable—that she continued comfortable until the third day from her confinement—that milk had been secreted, and that while in the act of nursing her child, she was seized with a shivering fit, which, by the nurse's calculation, continued nearly one hour. Warm teas and hot *sling* were given and persevered in, with a view of sweating away a supposed cold. As the patient experienced no relief, Dr. C. was sent for. He saw her twelve hours after the attack. The pulse was 120—the countenance pallid and anxious—the thirst considerable—the tongue white, but not much furred—the bowels costive—urine high-coloured and small in quantity. The hypogastric region was tense and quite sore upon pressure—the lochial discharge small and fœtid—the secretion of milk much diminished—the patient very restless and her strength exhausted. The pallid countenance, quick and small pulse, and great prostration of strength, forbade the use of the lancet, in the opinion of Dr. C. ℥ij. of sulph. sodæ were dissolved in ℥iv. of warm water, and one ounce of this was given every two hours, till the bowels were sufficiently opened; after which an anodyne draught was to be given, and the bowels were to be fomented with warm vinegar and water.

4th. Dr. C. saw the patient early in the morning—her symptoms had not improved—the salts had procured but one stool—pulse 130—thirst great—tongue dry—abdomen tumid

and very painful. There was sickness at the stomach, and the patient had vomited during the night. He took ten or twelve ounces of blood from the arm, ordered a table spoonful of castor oil every two hours until stools were produced; after which twenty-five or thirty drops of laudanum were to be given. A large epispastic was applied to the abdomen, and cremor tartaris was given to abate the thirst.

5th. The patient had a restless and bad night—the oil had operated twice, and thrown from the bowels much indurated and feculent matter—the laudanum procured very little rest—the pulse was more rapid—the tongue dry and brown—the abdomen more swoln—the stomach very irritable, and there was considerable pain in the head. The blister drew well, and gave some relief from the abdominal pain. Opium and camphor were now given to ease pain and quiet the stomach, and sinapisms were applied to the feet.

Dr. C. wished counsel, and I was sent for. On the morning of the 6th of February, and the 4th of the disease, I met Dr. C. and received from him the history of the case as thus far stated.

This morning the patient was evidently beyond the reach of medicine. The abdominal swelling was very great, although the soreness had much abated. She complained of sharp pains in her sides—her breathing was quick and laboured—pulse between 130 and 140—tongue brown and dry—teeth covered with sordes, and every thing was thrown from the stomach as soon as taken. Her arms were constantly in motion, throwing the bed-clothes in different directions, while her countenance was expressive of the most extreme distress. A diarrhœa had supervened, and the stools were dark and highly offensive.

With these symptoms, the prognosis could not be mistaken, and Dr. C. was sensible of the approaching event, having lost several patients within a very short period with the disease.

The effervescing draught was freely given. Pills, composed of calom. 2 grs. and opium 5 grs. were directed—one to be taken every two hours; while enemas were used to wash

out the bowels. Barley water and weak chicken broth were advised for her diet, and she was ordered the free use of sub-acid drinks.

I did not see this patient again, but learned from Dr. C. that the sickness and diarrhœa continued. Coma and singultus supervened, and she died on the 8th.

Several other women died about this time, under similar circumstances, and under nearly a like treatment. Mrs. J. was seized with the fever forty-eight hours after her confinement. She was attended by Dr. F. I saw her on the fourth day after the attack, and she died on the fifth. Mrs. S. of the same town, was attacked on the third day after her delivery. She was attended by Dr. S. I saw her on the fifth day of her illness, and she died on the sixth. In neither of these, had there been any thing like seasonable depletion. Except aperients and one small bleeding in the latter case, exciting remedies were used. In each case, when I saw it, the abdomen was as large as before delivery. Mrs. J. had a constant nausea and frequent vomiting of a dark tenacious fluid. She was greatly distressed, sensible of her situation, and very anxious to be cured. Mrs. S. was comatose, nearly insensible, and totally indifferent to every thing around her. Her stools very involuntary, frequent, dark coloured, and very offensive. The surface was covered with a clammy sweat, and she occasionally hiccupped.

In concluding my observations, I propose to give the narrative of a case, as illustrative of the practice pursued by me at that time, as well as subsequently, with but little variation.

When I visited Mrs. B. on the 6th of February, in consultation with Dr. C. I was also requested to see Mrs. T. residing in the same neighbourhood. She was very near the period of her gestation, and greatly alarmed for her future safety. She knew the situation of her neighbourhood, and the tongue of the busy-body had made her acquainted with the fatality of the disease abroad. She was then pregnant of her third child, in the prime of life, of the nervous rather than the sanguineous temperament.

I endeavoured to cheer her drooping heart and remove her despondency, by giving her the most positive assurance that her complaint was under the control of remediable means, and even might be prevented, by proper treatment. She wished to place herself under my care, and begged I would attend her in her approaching labour. As a preventive, some blood was drawn, a laxative given, and light diet directed. She was confined on the 12th. Her labour was somewhat lingering, but in all respects natural. I left her, two hours after delivery, with some after-pains, but with every prospect of doing well. The death of her neighbour had distressed her much, yet she was flattered by my encouragement, to believe that she would escape the fever. Before I left her, I directed her diet to be light, and every thing of a stimulant nature to be avoided. The bowels were to be opened on the next morning with sulph. magnes., and in case of a chill, it was to be removed by warm diluents, and the application of heat to the surface and extremities. I also desired that the earliest notice should be given me of any change. Mrs. T. remained comfortable until the third evening after her confinement; the lochial discharge had been regular, the secretion of milk had taken place, and her bowels had been moved by the saline purge. Yet, under all these favourable circumstances, about 2 o'clock A. M. of the 15th, and about fifty-four hours after her labour, she was awakened from her sleep with pain in the hypogastrium, and extending to the right groin in the direction of the round ligament. The pain intermitted, resembling severe after-pains; and this did not continue long before a shivering fit ensued. Warm teas and warm flannels were resorted to, as had been directed, and I was immediately sent for. I saw the patient at 6 o'clock A. M., four hours from the attack. There was at this time, febrile heat and tenderness of the abdomen; the uterus had not subsided into the pelvic cavity, but was distinctly felt above the pubis, and was tender to the touch. The lochia had nearly disappeared: the pain was constant, but not so severe as at the commencement. The pulse was 112; the artery small, but tense and vibrating; the tongue white and moist: thirst had been urgent, but was somewhat abated: there

was nausea, and disposition to vomit. She was restless, and despair hung heavily on her countenance. Sixteen ounces of blood was taken from the arm, and immediately on its cooling, was covered with a white buff. The pulse fell to 100; was fuller, and less vibrating. Five grains of ipecac. and three grains of tart. emet. were now given in some warm water, with a view to produce full vomiting. It had the desired effect. Much mucus and some bile were thrown from the stomach, and the febrile heat subsided: the patient became quiet, and the surface somewhat moist. A tea was made of senna, manna, and aniseed, each ʒij.: to half a pint of this decoction was added ʒiſs. sulph. magnes. Ten grains of calomel were given to the patient, and two tablespoonsful of the cathartic mixture was to be given within one hour after the calomel, and repeated once an hour, until several stools had been procured. Water-gruel was to be her diet. Spts. nit. dulc. and cold water were allowed freely when her thirst demanded it.

4 P. M. The calomel and cathartic mixture had operated freely, yet the pain and tension of the abdomen was very little abated; the lochia had disappeared; the secretion of milk was stopped, and the breasts became flaccid: pulse 120; tongue white and moist; considerable pain in the head. I bound up the arm, and took from the orifice which was opened in the morning sixteen ounces of blood, which produced some faintness, and an immediate abatement of pain. Pulse down to 110. After the effect of the bleeding was a little over, the cathartic mixture was to be continued, so as to procure two or three stools during the night. One part of antimonial wine was mixed with two parts of spts. nitr. dulc., and two teaspoonsful ordered to be taken every hour in cold water, unless it produced too much nausea.

16th, 7 A. M. The patient had slept considerably during the night. Soreness and pain were much abated. The bowels had been fully opened. Pulse at 100. Surface open, and skin quite moist. The lochial discharge had returned. Gave a small dose of Dover's powder, and allowed some weak

chicken broth: the antimonial mixture to be continued in case of fever.

5 P. M. Patient had some refreshing sleep after taking the anodyne powder, but was now restless. Pulse 110. Some soreness and pain in the hypogastric region. Ordered flannels, wrung out of warm vinegar and water, to be applied to the seat of the pain. Gave ten grains of calomel, and directed a tablespoonful of castor oil to be taken in one hour, and repeated once in two hours, until stools were procured. Antimonial mixture to be continued in case of fever.

17th, 8 A. M. Calomel and oil had operated well; patient greatly relieved; soreness of the abdomen nearly gone. Pulse at 90. Lochial discharge increased; some milk in the breasts. The bowels were kept open by the use of the cathartic mixture for a few days, and the patient's recovery was speedy and complete.

I know of no death in 1806 and 1807, in consequence of puerperal fever, where the depleting plan was early commenced and energetically pursued, until every vestige of peritoneal inflammation had disappeared.

In 1811 and in 1822, in my ride, and that of my friend Dr. Sherwood, a similar treatment was equally successful. In 1811, in this town (Fairfield), in one case where I was consulted, the patient lost sixty ounces of blood in thirty-six hours after the attack of the fever, and the bowels were thoroughly purged at the same time with calomel and jalap. This case at the onset was most unpromising, yet the woman recovered.

I have been greatly obliged by communications from various parts of the country on the subject of child-bed fever. There is a remarkable agreement in these communications, as it respects the diagnostic signs of the disease. Chills, succeeded by heat, soreness, pain and tension of the hypogastric region, with an excited circulation, are mentioned by all as ushering in the disease. All agree as to its fatal tendency, and none of them speak of curing the disease otherwise than by an early, prompt, and persevering system of depletion. If this plan did not cure, it still never failed of giving relief, and

of prolonging life. The great misfortune in the treatment appears, from the communications I have received, to have resulted from the neglect of not calling the physician in season. In some of the cases, from twelve to forty-eight hours had elapsed before the physician was consulted; and during this time the most injudicious, and frequently destructive, means have been used by the nurse to remove a supposed cold. Under these circumstances, no mode of treatment can be expected to prove successful. Where there is this neglect, or an inefficient treatment, fatal organic changes soon take place, which put the patient beyond the reach of remedies.

It is worthy of remark, that in two cases, communicated to me by my worthy friend Dr. Miller of Johnstown, where an incessant vomiting ensued, and could not be checked by any usual remedy, it yielded immediately to the moderate use of the ol. terebinth. This seemed to give much temporary relief, operating as a diuretic and cathartic; yet the patients did not recover.

There appears of late to be much testimony in support of ol. terebinth in puerperal fever. I have not used it myself, but should do it, in case of the failure of other remedies as recommended. As to local applications in this disease, a variety of them have been recommended. I have tried warm fomentations, cold applications, blisters, and local bleeding, and have found all, at times, serviceable; but they are of secondary consideration, and would be of little worth, without the general remedies already advised. Where there is much heat of the surface, united with great tenderness of the hypogastric region, cold applications have given much relief: on the contrary, if there is much pain and tension, with diminished heat, warm applications do the best. Blisters, in my opinion, should not be employed until the intensity of the disease has been very considerably overcome by depleting remedies, or until it appears in its sub-acute form. Topical bleeding is of much utility when the general bleeding has been a little too deficient, or in those delicate subjects that bear general bleeding badly.

The solicitude and care of the physician should be always actually engaged for the welfare of his patients. He should not be satisfied with treating their diseases after they have occurred, but he should, as much as in him lies, point out their causes, so that they may be avoided. Whenever the puerperal fever prevails, it becomes his imperious duty to visit those females whose term of gestation is nearly completed, and who depend on his assistance in the hour of parturition. He should remove their despondency, sustain their hope—point out to them the necessity of avoiding every thing that is calculated to disturb or irritate the system. The importance of a mild diet—the necessity of aperients—if there be plethora, the abstraction of blood,—are all to be enforced. In the hour of parturition, he should see that there is no improper interference with the process of labour. After the confinement of the woman, he should see that she is placed in a favourable situation, away from noise, and in a room sufficiently ventilated. He should give particular directions relative to her food and drink, and see that the most important excreting functions are duly and properly performed. He should make it his duty, if possible, to see the woman for several days after her confinement, and superintend in some measure her nursing; and should any symptoms supervene unfriendly to health, impress upon the nurse the necessity of sending for him without the least delay. This attention, if it should not prevent the fever, will at least lessen the danger, and make it more manageable.

This solicitude and kind care will greatly endear the physician to his patients. He will receive their thanks—become the object of their gratitude; while, at the same time, he will have the consoling reflection of having performed an important duty, and of saving the lives of some invaluable mothers.

ART. IV. *An Account of the Sources of Animal Heat.* By FELIX PASCALIS, M.D. President of the Academy of Medicine of New-York.

"THE animal heat, for aught proved by experiments, may depend on a cause totally different from either vessels, lungs, or nerves."

"Fresh be the laurels of the Caverhills and Crawfords, Berards and Brodies! But plain truth must confess in her simplicity, that we should have known quite as much of animal heat without their interference. It is still a problem, to the solution of which experiment will go much farther than the best hypothesis."—(Vide *Note, p.* 403, *Comp. Physiol. by Magendie.*)

With these, and similar other remarks, the translator, Dr. Milligan, introduces the special article on animal heat, of that work. It is somewhat singular that he should profess more scepticism, doubt, and caution than the author, who never held up any point of doctrine on animal life, except it was proved by his own experiments, or by such as he had examined and approved. This sweeping note was the less called for, inasmuch as he having adverted to *causes of animal heat* different *from either lungs, &c.* "he would not give up," he said, "the fine series of analogies which connected heat and respiration over the whole animal world." There must be several words too many in this *eloquent* note; or else the translator is one of those who need to consider again those analogies which connect heat and respiration.

It is the object of the writer in the following paper to illustrate these analogies—1st, from the general laws of the atmosphere; 2dly, from the distribution of atmospheric elements in the lungs; and, 3dly, from the various uses of oxygen in the human system. He would hardly undertake to treat at length on such important subjects; he intrudes only with a paper, bearing the heads of questions that every physiologist can or must resolve.

The atmospheric weight or pressure has long been estimated to be equal to 2232 pounds on a square foot or surface. The same upon the body of a man of an ordinary size, is also computed at fourteen times this product, that is, 31,248 pounds, which in an equal dimension surrounds him. Why we are not immediately crushed by such weight distributed on all points, sides, and parts, is the first question; and we will soon hereafter explain.

This law of nature is proved by another. A column of mercury of 29.89 in a glass tube opened and inverted, will be sustained in a cup of mercury as being of an equal weight. The same result may be obtained by a column of 33 feet of water. We have, therefore, the comparative weight of the atmosphere and its compressive power well defined and ascertained. Let us apply it to our subject.

The immense weight, as above expressed, cannot endanger the most tender part of the human frame, for several reasons.

The first is, because that weight or pressure of the atmosphere, when divided upon each distinct point of the surface of the body, is at last reduced to that only of about 15 pounds on each square inch of our own surface.

The second is, that this is equally counterbalanced by a like pressure on any straight, horizontal, or vertical line above and below the compressing forces.

The third is, that a portion of the atmospheric air introduced into the living body (being originally a vacuum) at the first moment of our existence, keeps a balancing re-action against all points of external compression, and leaves the most perfect liberty to the vital powers created for motion and locomotion. And the last preserving cause is, the conflicting external pressure and internal re-action of elastic matter kept up by elastic elements.

It must, indeed, be considered, that if a body is composed of parts endowed with different degrees of elasticity, there will be from them different degrees of resistance, and therefore the total mass of compression will be divided in as many degrees of re-action. Thus, taking the body of a man, we will find that the weight supported by the bony and spheric

case of the head, and by the vertebral column, is in a great measure counterbalanced by an *absolute* resistance, or dispersed and lost in different directions. The compression on the other extremities, arms, legs, and thighs, cannot but be partially propagated on the general system. There will be, therefore, only the trunk of the body which will receive the entire effect of atmospheric pressure; again to be divided into two cavities, or centres of action, and each of them alternately assisted by the elevation of the ribs, by the depression of the same and of the diaphragm; and the proof that the abdomen certainly receives its full share of external atmospheric pressure on the trunk, is seen in the full and rapid stream of waters drawn out from it, to the last drop almost, in cases of ascites, by the operation of paracentesis. This pressure also does not interfere with that which surrounds the thorax, in which the respiration is continued in the same and usual manner. It appears, consequently, that a full quarter part only of the atmospheric weight on the body is exercised upon the chest, besides some portion of the same reflected from adjacent muscles. For the sake of argument, we may plausibly infer that this is at most equal to 8000 pounds. But this diminished proportion would, it seems, be too great to maintain a certain kind of equilibrium with the atmospheric air of the lungs and bronchiæ. It would be more than sufficient to check or to prevent the elevation of the ribs, and absolutely impede respiration. We must, therefore, have some other way of accounting for that admirable equilibrium and unceasing corresponding agency which counterbalance, alternatively, the external compression against the internal elastic power, in order that a sufficient degree of heat may be elicited from atmospheric air, and incessantly renewed.

Let us then find out at first, what quantity of air may be contained in the lungs, and how the same can remain, sufficiently capable to resist or counterbalance external pressure.

No one will question the authority of Dr. E. Goodwin, whose Essay on Respiration was so far admired by the celebrated Hallé of Paris, that he translated it into French, for the advantage of his nation. This truly logical experimental-

ist asserts, that the quantity of atmospheric air contained in the lungs is different at the two periods of expiration and inspiration, 109 cubic inches in the first, and 123 in the second, as we draw in from 12 to 14 at each inspiration, according to its expansion by temperature. But this quantity of 123 inches is yet connected with the atmosphere, and exercises on the surface of innumerable cells, a pressure which is to be multiplied by 15 pounds weight for each of them, and constitutes, therefore, a pressure equal to 1745 pounds. Furthermore, we are to notice that the pulmonary air is permanently at the temperature of 98 or 100° Fahr. The new-born infant has something more from the mother in its blood, and always renews it at each inspiration; and it being much warmer than the external air, what greater degree of elasticity or resistance it comparatively opposes to the external air, is now to be inquired into. By numerous researches which have been made on this subject, principally by Messrs. Bettancourt and Dalton, it is first made evident that the elasticity of water, at a boiling temperature of 212°, is equal to the whole weight of the atmosphere—that is, 31,248 pounds, represented by 30° of the barometer. But the same temperature, which cannot be increased, unless the water is confined, if in this condition it was increased by 30° thermometer, its elasticity would be equal to two atmospheres. And by the same proportion again, in geometrical series of 2, 4, 8, &c., we have thus the term of relative elasticity of air by and from the quantity of 30° temperature, which will operate in the same ratio and in the converse below 212°, as the same above. In other words, a column of air is possessed of a double elasticity against one which has 30° less; and as this is pretty generally the case any where, man can live and exist with only a difference that not materially alters the temperature of the lungs, by 30° higher than the external air; it follows, that the resistance or elasticity of the first is doubled against the second; that is, a pressure of 1745 pounds becomes a pressure of 3490 pounds against 7812, the fourth of one atmosphere 31,248 pounds, not yet equal by more than one half to the first.

The reader will have found out before this time, that certainly it is not our object in this dissertation to ascertain what proportion of compression there exists between the pulmonary air and the external atmospheric compression, unless in so far as to prove that it is sufficient to elicit heat from the former, and thereby fulfil the great purpose of eliminating from it as much caloric as is necessary for the support of life. It is therefore of no great import to the subject we investigate, to find that the compressing power upon the human chest should be double the resistance or elasticity of the internal pulmonic column; when, notwithstanding heat is incessantly generated in it, by the mere power of pressure, it is subjected to the weight of the atmospheric column of air in the lungs, equal to 123 inches, opposing a resistance of 3460 pounds, against the double of that force. The only objection to that proportion would be, that the external force would, by its power, check the elevation of the ribs, and the whole mechanism of respiration. We answer, negatively; first, because this compression cannot exert all its power on the chest, owing to anatomical forms and obstacles which limit the motion of the ribs beyond a certain depression; and, secondly, because the whole external pressure, taken as it should be, on a rectilineal direction, cannot be wholly active on the surface of the lungs, and by the form of the chest, is proportionally directed on the heart, on the mediastinum, and is so far diminished as to preserve a sufficient equilibrium, which, after expiration, admits again such a degree of expansion sufficient to receive about 14 square inches of atmosphere. This column, therefore, is compressed in the air cells; it is condensed to that degree which, according to the known laws of nature, must give out two degrees of heat at each inspiration; and this is the principal source of animal heat.

I have thus explained what is the principal source of animal heat, and the mode and operation by which it is elicited from atmospheric air, according to the most approved existing philosophical principles. We will now come to the demonstration of the law by recent experiments.

In the year 1822, the following remarkable prize ques-

tion was proposed for the premium of 3000 francs by the Royal Academy of Sciences:—"To determine, by direct experiments, what are the causes and sources of animal heat; whether they be chemical or physiological: that animal heat, emitted by any healthy animal in a given space of time, should especially be determined with the carbonic acid which it produces by respiration, and the same heat compared to that which is created by the combustion of carbon." That learned body, therefore, entertained no doubt respecting the true source of animal heat; but they wished to submit the question to a final demonstration, as much as to give a chance of support to the hypothesis of Brodie of England, relating to the influence of the cerebral system on the production of that heat, which has been subsequently and victoriously refuted by Le Gallois and others.—(*Ann. de Chim. et Phys.* tom. iv.)

I must here remark, that a previous and leading exposition or question, the same which I have just attempted to elucidate, should at least have been adverted to, because it is a primary cause, which, if not admitted, will leave their prize question in the character of a *chemical* one merely, whereas it is primitively one of elementary physiology.

If a column of atmospheric air, as it is just introduced in the lungs, by compression and condensation disengages its latent heat, it loses the principal vinculum of its component elements; and this being effected while it is in contact with the carbon and hydrogen of the blood, the subsequent combinations of carbonic acid and aqueous vapour must naturally take place according to their natural affinities. With Daniel Ellis, we know that pure carbon, existing in its gaseous form, may be separated from its combinations at the ordinary temperature of our body, and combine with oxygen gas, although it be imbibed with water. Instead of which, we will show that, in our temperature and without condensation, pure carbon requires great heat for its combustion with oxygen, before it gives out carbonic acid.

Be this as it may respecting the formation of animal heat previous to that of carbonic in animals, while it is subsequent to the combustion of carbon in inanimated matter, Mons. Des-

pretz, of Paris, took up the question, experimented in both ways with an admirable precision and minute correctness; furnished us with the most satisfactory results, and obtained the prize. His object, it will appear, has been to confine himself within the views and indications by the program of the Academy, and first to determine the quantity of heat elicited during the formation of carbonic acid, and, separately, in that of water, which could be compared to that which he might obtain from the respiration of many different animals.

The first step was to procure pure carbon from the best refined sugar, calcined during one hour in a furnace which could easily melt copper or steel. It was a hard and shining mass; of so difficult combustion that, placed among live coals, it would only turn red, and gave no blaze; and it required to be in contact with pure oxygen to commence combustion; but if removed a quarter of a minute only, it would immediately return to its original black colour, and, like the diamond, lose its brilliancy by the process. It contained not the least vestige of hydrogen, discoverable by any test whatever; in conformity to what Sir H. Davy has already stated, that carbon, strongly calcined, is entirely divested of hydrogen. From all these noticed characters, this elementary matter was formed and obtained in the state of the most perfect purity; and it could not be suspected, that any known substance or principle might remain to invalidate the result of the experiments. A known quantity of this carbon was placed in a crucible of platina, to be enclosed in a round box, and this in the middle of a spiral worm with which it had communication by two tubes—one by which it could immediately reject the gas formed, and the other receive the air or the oxygen; this element was chosen to facilitate the experiment, after passing over the chlorure of calcium, in order to keep it pure, and was to receive the heat through the worm of about 12 inches long and 3 lines diameter: this whole apparatus was to be immersed in a water-calorimeter, which, for many reasons, was preferred to an ice-calorimeter: it was a thin copper case, to be filled with water and covered, furnished with seve-

ral well graduated thermometers, and with small curved fliers in the water, to be moved by wooden handles, which, in equalizing the temperature of the fluid, should not transmit the heat of the person who moved them. The weight of this whole apparatus, composing the box, the water, and the case, was 37454,6—or about 62 pounds. Four experiments were made, within from 15 to 20 minutes each; that is, during an hour and a half; in each instance the temperature of the materials had been equalized at commencing, by setting the carbon on fire by a kind of fire-work; not to lose time, and reckoning the remaining heat at the end, the average of which was 7914°,7 as the quantity obtained by the transformation of a part of the carbon into carbonic acid, and could melt 104,2 pounds of ice.

The combustion of the hydrogen gas separately made, and estimated by the calorimeter of ice, gave 315,2 parts of water.

We will not find uniform results in experiments made with animals, nor perfectly equal to those from inorganic matter; because the affinities are, in them, subject to the influence of vital action, of age, of health, aliments, and other circumstances which must modify them; but they present, nevertheless striking analogies. The first is, that of the apparatus; a thin copper box into a case of the same metal, and to contain a bird, or quadruped, as conveniently as possible, in another to be filled with water. The weight and temperature of the apparatus are first ascertained, and the animal is isolated among wooden slips or shavings, lest it should communicate its natural heat to the metal, and the cover of the whole is so contrived as to have its edge immersed into a groove filled up with quicksilver. In that situation, air is transmitted to the animal with celerity, at the quantity from about 45 to 50 litres (more than 12 gallons) exactly measured. Now the capacity over the water contained space enough for the air respired, which was carefully analysed after each experiment, generally carried on during one hour and a half or two.—They were made on guinea-pigs, rabbits, dogs, cats, owls, and wild or aquatic birds. Such were the results, that they

raised the temperature of the water to a grade from which, abstracting the heat which was due to the formation of carbonic acid and to that of water, there had regularly been a balance of heat from 70° to 89°; which Mons. Depretz has attributed to an accelerated circulation of the animals, to assimilation, to internal movements and frictions, &c. He has remarked, with many experimentalists and philosophers, that although the oxygen of the air is thought to be wholly employed in the formation of carbonic acid and water, and thus to represent the whole quantity respired; yet he thinks, with Davy and others, that a small portion of it, variously estimated, disappears, without being accounted for. Some make it $\frac{1}{22}$, $\frac{1}{80}$, $\frac{1}{120}$, &c. This loss is different at each experiment: it depends upon the age and the species of the animal. This observation is so far interesting that it leads us to the probable inference, that this small quantity of lost oxygen is employed in forming the colouring-matter of the blood.

The better to give our readers a true idea of the method and attention of our experimentalist, we will extract the *exposé* of one experiment only, as performed on three guinea-pigs, in his original style, manner, and numerical estimations.

FIRST EXPERIMENT.

Three Guinea-pigs, female adults.

Duration of the same ..... 1 hour 45 minutes.

Volume of air furnished, at 9°,44.....48 litres 026 { 10,035 oxygen / 37,941 azote

Reduced by calculation to same temperature after experiment { 2,587 acid / 6,789 oxygen / 39,616 azote

Acid formed ..... 2,587 litres.
Oxygen lost 0,709
Azote disengaged..... 1,675

These three animals have raised the temperature of water 233109,5 of 0°,63 from which we have deducted:

Leaving of animal heat 100
heat by the formation of carbonic acid 69,6 } 89,0
heat by the formation of water..... 19,4 }

The oxygen disappeared, equal to $\frac{7}{26}$ of the formed acid.

The azote disengaged from that of oxygen $= \frac{17}{178} = \frac{17}{26}$ of the formed acid.

N. B. The animals frugivores give out often a quantity of azote, larger than the oxygen which they absorb, and more heat than the carnivores.

The gas which had been respired usually contained six per cent of carbonic acid. This was ascertained by the test of potash, and the residue was analysed with hydrogen.

All the animals submitted to these experiments and manipulations, shortly after perished. A considerable alteration had, therefore, been produced in their systems, although they were found to be in a regular temperature of 100°, but they had furnished more heat than natural.

It is, therefore, incontestably proved, that respiration is the principal cause of the development of animal heat. Mons. Despretz thinks, notwithstanding, that assimilation, &c. may well have produced an over proportion; and Magendie himself has stated, in his physiology, that "a part of animal heat may well be ascribed to the nutritive phenomena and secretions; because these form a variety of combinations which, like most chemical combinations, may produce elevation of temperature." (p. 406.) I must confess that I am not prepared to embrace nor to oppose such an opinion, so powerful are the arguments on both sides of the question; and as far as I have had occasion to meditate upon it, and practically to exercise my mind over it; for the negative, indeed, I should say;

That I never have seen a case of general disease, in which animal heat was not entirely under the influence and absolute control of respiration;

That although the laws of nutrition, assimilation, and secretion, are more rapidly carried on in the periods of infancy and childhood, they by no means raise the temperature of the body more than that in advanced periods of life, in which the same is low and feeble;

That the time of rest and sleep, being more particularly employed by the natural economy to the functions of assimilations and secretions, is that by which animal heat is always lowered, and requires more precautions to concentrate the same.

On the other hand, it is true, that in local inflammations, phlegmasiæ, and suppuration, in which the colouring matter of the blood is decomposed, there is a much higher temperature than

in the red blood; also, in the glandular vessels of the body, from which a greater heat emanates with moisture, without impairing the temperature of the system; also, in cutaneous capillary congestions, in fevers of a violent and malignant nature, which diffuse over the body a high grade of mordicant heat, not experienced on mucous membranes;—all of which is well worthy our inquiries and attention, and may become the subject of future investigation.

New-York, March 1, 1825.

ART. V. *A Case of Epilepsy, from depression of bone, Cured by Trephining, with Observations.* By DAVID L. ROGERS, M.D. of New-York.

MR. D. æt. 46, the subject of the following case, has laboured under fits of epilepsy for the last fourteen years. For the last ten they have occurred so frequent as to disqualify him for labour of any kind, and they have gradually increased in frequency and violence. From their long continuance, his mind is much impaired, and he is fast approaching to a state of idiotism. By a close examination I was able to collect from him the following history of his case:—He stated, that a short time previous to the first attack of fits, while working on board a ship, he received a blow from a bar of iron on the front part of the head, which fractured a portion of the frontal bone. He was taken to the hospital; and there not existing any symptoms of compressed brain, it was not considered necessary to elevate the fractured portion. After a few weeks he recovered from the immediate effects of the injury, and left the hospital in good health. Shortly after this he had an epileptic fit, which returned once a month for three or four years. In the intervals, between the fits, he enjoyed good health. For the last ten years the fits have increased in frequency, and, at this time, he has two and three a day. His appetite is voracious: he is indifferent as to the kind of food which he eats, and seeks only for a sufficient quantity to

satisfy his hunger. He complains of pain on the injured side, which extends down the neck and left arm; the eye of the same side is diminished in size; the sight much impaired, and his memory almost entirely destroyed.

The wound was easily found by the large cicatrix which remained. It was situated immediately above the left superciliary ridge of the frontal bone, and over the superior orbital hole. From the situation of the fracture, we should suppose that the external plate of the frontal sinus alone was involved in the injury, but upon a close examination of the bone above the sinus, I discovered a depression sufficiently large to admit the extreme point of my finger. This depression was so small that it might readily have been mistaken for an irregularity of bone, or the mere depression of the external plate, had not the history and circumstances of the case called my attention to it.

Although the appearances, on examination, would not alone justify an operation, yet, from the regular progress of the disease, I felt assured that the irritation, producing these fits, originated from this injury of the head; and concluded, that either a portion of the frontal bone was depressed and giving rise to the irritation, or that a spicula of bone projected from the fracture into the substance of the brain; and from the constant pain felt in the part, which was increased on the approach of the fits, I was led to recommend the removal of the injured portion. The friends readily consented to the operation, the man being incapable of judging for himself.

On the 7th of July 1825, assisted by professor Mott and Dr. King, I proceeded to remove the depressed portion of bone by the application of the trephine.

Much difficulty occurred in elevating the bone, in consequence of the inequality in its thickness; this proceeded from the saw having to pass through the upper part of the frontal sinus. The bone, after considerable difficulty, was elevated; but, unfortunately, the dura mater was cut through for one half of the circumference of the circle. The membranes and the parts around the wound were, by far, more vascular than I have been in the habit of seeing them in operations of this

kind. The removed portion of bone, upon examination, was found to have a corresponding ridge upon its internal surface, not sufficient, however, to produce any compression of the brain.

Having made a section of the frontal sinus, a part of the *posterior table* was removed with the circular piece. This portion of the internal table had been fractured, and separated for some distance from its inferior attachments to the frontal plate, and driven back upon the substance of the brain. Its sharp edge was worn round and smooth, resembling the natural termination of bone.

Those present were satisfied that this portion of the frontal sinus was fractured and separated by the blow on the head, and was the cause of the subsequent mischief. The parts were drawn together and dressed in the usual form.

2d day. He has been very restless through the night; he complains of considerable pain in the head, and in great dread of a return of the fits; the excitement less than was expected. He was ordered a strict antiphlogistic diet, with a drachm of the sulph. magnesia every two hours.

3d day. He has had no return of the fits, and has rested much better through the night; his medicine has operated freely; the pain continued in the head and arm; the same treatment pursued. He continued from this time gradually to improve, without any return of the fits, until the twenty-fifth day after the operation. The wound, at this time, was entirely healed, and he was ermitted to sit up for a short time; when he imprudently overloaded his stomach with food, in the absence of the nurse. I was called in haste to witness a return of the fits. I found him stupid and almost insensible, much resembling apoplexy. This was followed by high arterial excitement and inflammation of the brain. By active depletion he was, in a few days relieved. The pain in the head and numbness in the left arm gradually subsided. He was discharged as cured on the 20th of August.

Nine months after the operation I saw this man in the street. He stated, that his memory had nearly recovered its usual strength. He has had no return of the fits, and is so far re

stored to health as to attend to his business without any inconvenience.

A few general remarks, in relation to fractures of the skull, would not be considered improper in connexion with the present case, as it is possible that it may be referred to in favour of the indiscriminate use of the trephine in fractures of the skull, and the few solitary cases, in which epilepsy has followed these injuries, should be adduced in its support, without any reference to the immediate effect of such injuries.

The division of fractures into simple and compound, has led surgeons to make a difference in the treatment of these accidents. In the first, it is advised not to operate without symptoms of compressed brain ; and in the second, to elevate the bone without any reference to its immediate effects upon the brain.

Although the distinction of compound and simple fracture is proper in the extremities, inasmuch as the treatment of the two accidents materially differ, yet when applied to the head we are not satisfied of its practical utility. It is apt to lead those astray who believe, that a difference in name must consequently require a difference in treatment. This not being the fact in the present case, and these two varieties of fracture requiring the same general treatment, the distinction of simple and compound, for practical purposes, should be avoided.

It is now generally admitted, that the operation of trephining is unnecessary in simple fractures of the skull, unattended with compressed brain. Mr. Abernethy has done much in establishing this practice, and the result, thus far, has been in its favour. Cases are daily occurring of depression of bone much below its natural surface, which recover without being elevated, and, as a general rule, no inconvenience is experienced from the injury ; and as far as our observation extends, we are well satisfied, that the simple depression of bone seldom or ever produces compression of the brain without an extravasation of blood, which we believe, in most cases, is the cause of compression.

A course of bold depletion is necessary to prevent arterial excitement, which is the only circumstance that is to be dreaded in the treatment of these cases. If a considerable portion of bone is depressed, and inflammation is permitted to progress, it frequently happens that the expansion of the brain causes symptoms of compression, and we are obliged to resort to the saw for the removal of the bone. This may, however, be prevented by proper depletion and care on the part of the surgeon.

I am well aware, that it is the practice of some surgeons to trephine for simple fractures. An operation has lately been performed in the neighbourhood of this city, when the patient had, at least, sufficient sense to walk about the room, and discuss with the surgeon the merits of the operation. Such a practice should be severely reprobated; it unnecessarily places the life of the patient in great hazard. I shall here offer two cases of simple fracture, with depression, which recovered under the depleting plan.

Case I. J. R. aged 12 years, fell from a hay-loft upon a stone, the 16th of April 1823. He was brought to the house insensible. I saw him two hours after the accident; he had recovered his senses perfectly, but complained of pain from the contusion of the scalp. The blow was received on the right parietal bone, a portion of which was depressed, of about three inches in circumference and at least two lines below the surface. As no symptoms of compression were present, I did not consider it proper to elevate the bone; and according bled him freely from the arm—ordered a mild cathartic, with bread and water for his diet.

On visiting him the next day, he complained of considerable pain in the head, with intolerance of light, and an inflamed state of the eye. I bled him largely from the arm, and ordered six leeches to the temple. This practice was continued for twelve days, and he was bled at least once a day, with other means of depletion. The symptoms gradually subsided, and at this time he enjoys good health, without experiencing any inconvenience from the injury.

Case II. I was requested by Dr. C. to visit a poor child, who had fallen upon the post of a chair and fractured its skull. The Doctor had left it insensible and labouring under symptoms of compressed brain. I saw it three hours after the injury; it was then insensible; I found a considerable portion of the frontal bone driven in. The depleting plan was advised. I have learnt from Dr. C. that this child completely recovered.

Many surgeons adhere to the old practice of elevating depressed portions of bone, from a belief, that its unnatural situation would be a source of irritation to the brain, and, at some future time, epileptic fits would be the consequence.—This opinion is supported by Sir A. Cooper, in relation to compound fractures—and he recommends the removal of bone. We are not satisfied as to the correctness of this distinction; or from what circumstances, connected with these injuries, we should dread epilepsy in one case more than in another. The only difference, in the two cases, proceeds from the bone—in the one case, being exposed to the air; while in the other, it is covered by the integuments. In relation to the bone, and they are in the same situation, and in either case, our fears are founded upon the belief, that newly formed bone occasionally proceed from the internal surface of the depressed portion; and from their irritation on the brain, produce epilepsy. This distinction, we are well convinced, cannot be supported by practice.

The question would naturally arise, why is depressed bone exposed to the air more likely to have preternatural growths, or protuberances projecting from it, than those covered by the common integuments?

Unless this question can be satisfactorily answered, we should be inclined to regret this distinction in fractures of the skull, and to pursue the same plan of treatment in all cases.

I shall submit two cases of compound fractures of the skull, which came under my care while Resident Surgeon to the New-York Hospital. One I have transcribed in detail, to

show the extent to which depletion may be carried in these cases with safety and advantage to the patient.

Case III. O. Platt, a robust man, aged 21 years, was admitted into the New-York Hospital, July 6 1822, with a compound fracture of the skull, produced by a fall from a scaffold about ten feet high. The frontal bone was fractured on the right side, with a depressed portion of four inches in circumference. At the time of his admission, the wounded temporal artery was bleeding freely; his senses were perfect, and without any symptoms of depressed brain; he complained of slight pain in the head. He was placed in a dark room, and ordered bread and water for his diet, with simple dressings applied to the wound. Two hours after his admission, considerable re-action came on. He was bled ℥xvj. from the arm.

7th. Passed a sleepless night; complained of pain in the bowels, with great irritability of the stomach; pulse quick and hard; bled ℥xx; give him the aquæ ammonia acetat. ℥ss. every hour, and apply warm fomentations to the abdomen. 7 P. M. pain returned in the head; bled ℥xvj. which gave him much relief

8th. Rested well the first part of the night; the pain in the head has returned, with slight symptoms of compression; bled ℥xxv; he has not had a passage from his bowels in two days; let him have the infus. sennæ cum sulph. magnesiæ, to be followed by an enemeta. 7 P. M. the medicine has not operated; he was ordered the ol. ricini ℥ij. and bled ℥xvj.

9th. The constipation continues: cathartics continued; pulse much excited; bled ℥xx. 7 P. M. the cathartics have not operated; bled ℥xvj.

10th. Passed a very restless night; complains much of his head; pulse hard and quick; has had no passage from his bowels; let him have calomel grs. x. every six hours; bled ℥xvj. 7 P. M. much relieved by the operation of the calomel.

11th. Rested better than usual; slight pain in the head; bled ℥xvj.

12th. Rested well, and feels but little pain in the head; dressings removed from the wound—it looks healthy, with a free suppuration; an abscess has formed under the occipito-frontalis muscle, extending to the right side; an opening was made for its discharge, and the wound dressed as before. The suppuration, under the scalp, gradually lessened by the use of compresses and bandages. Granulations, from the edge of the wound, in a short time covered the bone; and at the time of his discharge from the house, his health was completely restored and the wound nearly healed.

This man I occasionally see (1826) and he has felt no inconvenience from the injury.

Case IV. J. T. admitted November 12th 1822. This poor man received a blow from a brick thrown at him with great violence. The integuments were extensively lacerated, and a portion of the frontal bone driven in; the pulsation of the brain could be distinctly seen; his senses were perfect.—The depleting plan of treatment was pursued, but not to the extent of case third. The mild symptoms of inflammation which came on subsided in a few days, and in three weeks he left the hospital in good health. Not having seen this man after he left the house, the result of the case is uncertain.—The dressings to the wound in this, as well as the last case, were not removed until all symptoms of inflammation had subsided. This we consider as an important improvement in the treatment of wounds and operations about the head.

The result of practice, we believe, will warrant the rule, that the operation of trephining should never be performed under any circumstance, unless to relieve pressure on the brain.

ART. VI. *Quarterly Report of Diseases, treated by the Physicians of the New-York City Dispensary, from the 1st of January to the 15th of March, 1826.*

	Jan.	Feb.	Mar.	Tot.
Atrophia	1	0	0	1
Asthma	2	1	2	5
Anasarca	1	1	0	2
Apthæ	1	0	1	2
Aneurisma Art. Fem.	1	0	0	1
Amenorrhœa	3	16	10	29
Abscessus	0	7	6	13
Ascites	0	3	1	4
Aphonia	0	0	1	1
Bronchocele	1	0	0	1
Bronchitis	1	10	5	16
Catarrhus Epidemicus	89	260	57	406
Cynanche Trachealis	3	2	1	6
——— Tonsillaris	5	2	0	7
Cephalalgia	2	6	7	15
Cachexia Syphiloidea	1	1	0	2
Colica	2	1	0	3
Cataract	1	0	0	1
Cystitis	1	0	0	1
Contusio	21	30	11	62
Cholera	2	5	1	8
Concussio Cerebri	0	1	0	1
Convulsio	1	1	0	2
Dyspepsia	13	12	11	36
Delirium a Potu	3	6	3	12
Dentitio	1	4	2	7
Debilitas Simp.	5	2	1	8
——— Nervosa a Opio	1	0	0	1
Diarrhœa	7	5	5	17
Diabetes	1	1	0	2
Dysmenorrhœa	2	1	0	3
Dysenteria	1	2	1	4
Erythema	0	0	1	1
Epilepsia	1	2	0	3
Erysipelas	2	2	1	5
Febris Simplex	24	16	7	47
——— Remittens	0	10	1	11
——— Intermittens	5	7	3	15
——— Typhus	0	2	1	3
——— Puerperalis	0	1	0	1
Fractura	3	5	1	9
Gastritis	0	1	1	2
Gelatus	2	3	0	5
Gastrodynia	0	2	0	2
Hydarthrus Scrofulosus	1	0	0	1
——— Rheumatismus	1	0	1	2
Hæmoptysis	2	2	2	6
Hæmatemesis	1	0	0	1
Hæmaturia	1	0	0	1
Hæmorrhois	5	2	2	9
Hysteria	1	0	0	1
Hydrocephalus	1	0	1	2
Hepatitis Chron.	10	3	4	17
——— Acut.	0	2	0	2
Herpes	2	4	5	11
Hernia	0	2	2	4
Icterus	1	0	1	2
Ischuria	0	2	0	2
Lepra Vulg.	1	1	1	3
Lumbago	1	3	2	6
Leuchorrhœa	3	3	2	8
Lichen Senilis	1	0	0	1
Lichen Simplex	0	1	0	1
——— Pilosus	0	1	0	1
Luxatio	1	0	0	1
Marasmus	4	0	0	4
Menorrhagia	2	1	2	5
Nebula	2	0	0	2
Otitis	2	5	2	9
Ophthalmia	10	5	4	19
——— Tarsi	0	1	0	1
——— Purulenta	0	3	2	5
——— Scrofulosa	0	0	1	1
Obstipatio	7	5	6	18
Otirrhœa Purulenta	0	2	3	5
Orchitis	0	4	1	5
Pleuralgia	4	9	5	18
Pneumonia	37	47	21	105
Phthisis Pulmonalis	18	11	3	32
Peritonitis	0	0	1	1
Phrenitis	1	0	1	2
Pleuritis	22	20	7	49
Paralysis	2	2	1	5
——— e Plumbo	2	0	0	2
Porrigo Simplex	2	1	3	6
——— Favosa	5	10	1	16
——— Decalvans	0	1	0	1
Plethora	4	1	2	7
Pertussis	3	0	7	10
Paronychia	3	2	1	6
Psoriasis Simplex	3	1	2	6
Parotitis	1	1	0	2
Paraphymosis	1	0	1	2
Phlegmon	0	3	0	3
Pernio	0	1	0	1
Prolapsus Uteri	0	1	0	1
Pustulæ	0	1	0	1
Rheumatismus	36	27	13	76
Rupia	0	1	0	1
Surditas	2	0	1	3
Stremma	8	8	4	20
Syphilis	11	14	4	29
Sycosis Menti	1	0	0	1
Scabies Inveterata	2	1	1	4
——— Vesiculosa	1	3	2	6
——— Purulenta	4	1	0	5
Scrofula	1	3	0	4
carlatina	0	2	0	2
Strophulus Intertinctus	0	1	0	1
Sideratio	0	0	4	4
Tubercula	0	1	0	1
Tumor	4	0	3	7
Tussis Chron.	4	0	2	6
Ulcus Chronicus	14	13	2	29
——— Corneæ	1	0	1	2
Ustio	11	4	0	15
Urticaria Evanida	1	0	0	1
Urethritis	2	6	6	14
Vulnus	11	9	3	23
Vesicula	0	1	0	1
Variola	2	1	0	3
Vermes	7	15	5	27
Varicocele	1	0	0	1

Total 1509

The early part of the winter was extremely healthy, and very little inconvenience was experienced from the weather, which was remarkably mild, dry, and clear. During the last week of December, however, it became unsettled and damp. The second week of January was more clear and cold. It was observed by many of the older inhabitants, that the barometrical and thermometrical changes, during this month, were greater than had been experienced for a number of years previous. The prevailing winds were west and north-west; the weather was cloudy 12 days—fair 13—rain 4—snow 1½—and snow and rain ½. The highest thermometrical range was 61°—the lowest 2°. Pneumonic affections had become somewhat rife during the second week of January, and were yielding readily to medical treatment, when the weather becoming foggy and damp, the disease suddenly assumed a *typhoid** character. Upon this change, the tongue became dry, dark, and crusted, and irregularly intersected with deep fissures—the pulse small and wiry—skin parched—slight subsultus—some coma—and, in a few cases, mental wanderings. In 36 or 48 hours the symptoms became more favourable upon the use of alterative doses of calomel in combination with Dover's powder, followed, after a short time, by brisk purgatives.

It will have been perceived by our report, that the prevailing disease, during the last quarter, has been the *epidemic catarrh*, or *influenza*. It has been observed by Rush, that this epidemic did not seem to arise from any appreciable condition of the atmosphere. The validity of this opinion would afford an interesting subject of discussion. Did it comport with the intention of this report, we might also enter into an inquiry, whether the ultimate exciting cause of this epidemic consisted of a long series of atmospherical changes—or, of the immediate and sensible effects, arising from the vicissitudes of a few days? The facts alone can be given; the conclusion will be left to the reader. The continual succession of atmospheri-

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* There may be an objection to this term, as it would seem to imply *debility*, but in these cases *debility* did not exist; it was a *depression*, and not a *loss* of strength.

cal variations, during the month, have already been hinted at. It may be further remarked, that on the 15th the barometrical range was the *lowest*, and the thermometrical the *highest*, of any previous or subsequent day during the month. The medium height of the barometer, on the 12th, 13th, 14th, and 15th, was as follows:

12th	-	30,50
13th	-	30,24$\frac{1}{3}$
14th	-	30, 00
15th	-	29,37$\frac{2}{3}$.

The wind also, which had previously been generally west and north-west, on the same day changed to the south-west. By referring to the register of the Institution we find, that on the 16th a greater number of cases of catarrh had been prescribed for than on any previous day. A few cases, however, had occasionally presented themselves during the winter, but these were of a more simple character than those which subsequently prevailed.

About the 20th the epidemic had spread throughout the city, attacking children and adults of both sexes and of every temperament and condition. The invasion of the disease was characterised by frequent and severe chills—pain in the head, generally over the eyes—depression of strength—foul tongue—full, but not a hard, pulse. After the disease had become more fully formed, the pain in the head increased, and the larynx and bronchiæ became severely affected; a total defect of taste was generally experienced; and, in many cases, there were acute pains in the limbs. A cough was universal; it was convulsive and reproduced at unequal intervals, accompanied by a sense of tearing along and beneath the sternum, and a diffuse pain and sensation of heat throughout the thorax. The stomach in every case was deranged, as evidenced by a foul, thickly coated tongue—nausea—loss of appetite—and, frequently, by spontaneous vomiting.

Bleeding was seldom required, except in females in advanced pregnancy, and in a few cases where there was a predisposition to acute pneumonic affections, or where the brain

was principally affected. In the last, venesection was indispensable.

The treatment found most successful, where no extraordinary symptom intervened, was the prompt administration of an emetic, abstinence for a few days, and small and repeated doses of the neutral purgative salts, or of the super tartrate of potash, in combination with tartarized antimony. In many cases the simple administration of a full dose of calomel and jalap, followed by mild diaphoretics and abstinence, sufficed to effect a cure.

In children, the throat principally suffered; and the epidemic, in these cases, put on the form of *croup*. The usual remedies proved successful. *Erysipelas* was observed to attack a few individuals, especially among the blacks. In one case of this affection, where it attacked the head, the brain was involved, which was no sooner relieved than symptoms of *typhus* supervened. Calomel and opium, with mild tonics and laxatives, and the external application of rectified spirits, readily effected a cure.

The epidemic prevailed throughout the greater parts of the months of January and February. Those who presented themselves during the latter part of February, generally complained of harassing cough, loss of appetite, difficult expectoration, and violent intercostal and epigastric soreness. The two latter symptoms were produced mechanically by the cough. The difference between this intercostal pain and pneumonic inflammation was strikingly illustrative of the disease. The manner of the patient was not consistent with pleurisy or pneumonia. In these acute diseases, the position of the patient evinces a desire for a free expansion of the lungs; he lies on his back with his arms somewhat extended; his tone of voice is expressive of the mischief that is going on internally—it is low and laboured. In the influenza, the patient relaxes the muscles of the chest by inclining the body forward; the pain is increased by motion or the slightest pressure; it is not stationary, but will be most distressing at one time on the left, then change to the opposite side—now it

will be felt along the sternum, then again beneath the scapula;* the concomitance of the same sense of soreness and pain in the abdominal muscles, is also a distinguishing characteristic, as well as the description which patients generally give of the seat of pain—its being external and not deeply seated. These distinctions are noticed, because we fear that bleeding has been directed with manifestly bad effect in many of these cases, under the supposition that the pain arose from pneumonic inflammation. In no other way can the number of deaths, which occurred in this city, be accounted for.† Bleeding, in this stage, was not indicated by the pulse; it was generally small and feeble, although quick. The cough was kept up, in a great measure, by the gastric derangement; for there were universally present, at this time, a defect of appetite—constipated bowels—foul, slimy tongue—occasional vomiting, and violent head-ache. Relief from these symptoms was speedily experienced by the exhibition of the following powder:

℞ Hyd. sub. muriat.
Pulv. Ipecac. āā ℈j.
Misce et in part. iv. Div.

One of these powders was taken every half hour, until vomiting was produced. A stimulating plaster or embrocation applied to the chest, always proved beneficial; and mustard cataplasms laid over the epigastrium, removed the pain and quieted the uneasiness of the stomach. The disease sometimes produced fearful effects in those who were subject to pneumonic affections, in asthmatic patients, and those who were labouring under pulmonary consumption. It terminated in phthisis in many who were predisposed to that complaint. The mechanical effects of coughing were sometimes attended with danger. By referring to the annexed report, it will be

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* This *metastasis* may be considered as somewhat peculiar to the disease.

† Of the great variety of cases of this disease which were necessarily included in upwards of 400 patients prescribed for from this Institution, not one death occurred.

perceived that four cases of *hernia* presented themselves in February and March. It will be recollected, that it was at this time the cough was most harassing. Another observation will be made by the same reference. In January there were only *three* cases of *delirium a potu;* in February there were *six*, and up to the 15th of March there were *three*. The greater number of cases after the first of February, we think, may be attributed as well to the mechanical agitation (and consequent momentary, although frequently repeated, determination to the brain) as to the foul condition of the stomach and attendant debility.

One of the cases of hæmoptysis, was a woman, who, whilst labouring under a fit of coughing, ruptured a vessel, and by one gush threw up about three pints of blood. She was seen some time after, and prescribed for without any hopes of recovery. A blister, however, was applied to the chest, and the super acetate of lead, with opium, was directed to be taken. These remedies alleviated the distress. She died on the fourth day, without, however, any recurrence of the bleeding.

It was during this month (February) that the two cases of acute hepatitis occurred. In one a blister had been applied in the first stage by a physician, before application was made at the Dispensary. The effects produced were such as might have been expected—an aggravation of the symptoms. The same patient was bled *ad deliquium;* but the relief afforded was only transitory. Both cases were soon relieved by the use of calomel in combination with antimony, followed by active calomel purges.

The first weeks of March were extremely unpleasant; the wind continued in one quarter (N. E.) for twelve or thirteen days, during which time it rained continually. The diseases prevalent up to the date of this report, were a few cases of rheumatism, infantile catarrhs, whooping cough, and pneumonic affections. The majority of the patients were convalescents who had suffered from the epidemic.—Acute cephalalgia, (in every case accompanied by disordered stomach and constipated bowels) chronic cough and debility, were the

chief symptoms. An *emetic* and *saline purgatives* relieved the first. Believing that the *cough* was kept up in a great measure by the disordered state of the stomach, the indication appeared to be, to restore the tone of this organ and thus quiet the irritation. With this intention, after the *primæ viæ* had been evacuated by the proper remedies, the following mixture was directed:

℞ Mucil. G. acac. ℥ij.
Lact. Ammoniac. ℥ij.
Tinct. Capsici ℥i.
Tr. Opii. Camph. ʒ ss. M.

The patient was also directed to take an infusion of colombo through the day. These remedies produced the desired effect; the appetite returned, the food was retained without the sense of weight which had previously existed, and the cough ceased. A trial of these prescriptions was made in upwards of fifty cases, and in none did it not prove serviceable.

The cases of *paralysis from lead*, were a girl who had worked as a type polisher, and a painter. The girl had a leuco-phlegmatic appearance – and she complained of intestinal spasms, loss of appetite, constipated bowels, and paralysis of both the hands. Calomel in small doses in the afternoon, followed by purgatives next morning, with stimulating embrocations, and friction to the hands and wrists, soon restored her bowels to a healthy state and her hands to their use. The case of the painter was of longer standing: in him the arm was emaciated and the hand useless. The same remedies as in the first case, with the addition of Pemberton's splint, effected a cure in a few weeks.

The subject affected with *dementia*, was a barber, about 18 years of age, who, previous to having a *gonorrheal affection*, had been remarkable for his quick apprehension and his pliant and cheerful disposition. For his gonorrhea he applied to an apothecary, who gave him some medicine and an injection, which had the affect of checking the disorder. A few days after this suppression, he became melancholy, morose, and obstinate—this state continued for a short time, when it was succeeded by religious frenzy. In this situation he remained

seven or eight weeks, during which time his bowels were obstinately costive and his appetite irregular. To this state of mental excitement, succeeded one of perfect listlessness, which continued about three months—his bowels still costive, his skin dry, and his hands and feet cold. Dr. Wright now saw him for the first time—seven months from the beginning of his complaint. A blister had been previously applied to the back of his neck, and followed by antimonial ointment; this had produced a large crop of eruptions. He had been recently cupped on the temples—had taken calomel, both in alterative and purgative doses—all without any apparent effect. Dr. W. found him listless, pertinaciously silent, his countenance vacant, his lower jaw fallen and continually wet, from an unconscious drivelling of saliva—and his whole appearance perfectly idiotic. The calomel and ointment were continued, with the addition of an infusion of senna, and salts every second morning. The medicine was not taken regularly, and he had but one stool during a week. It at length became impracticable to administer any internal remedies, and he passed another month without any amendment. Dr. W. was now led to believe (from making a more particular inquiry, and by perceiving the development of new symptoms) that the mental disorder arose from a symptomatic affection of the brain, and that the chylopoietic viscera were mainly to be attended to. As the patient made a silent but effectual opposition to taking medicine, Dr. W. was induced to use the *nitro-muriatic bath*, in the following proportions:

℞ Acid. Nitric.
Acid. Muriat. āā ℥iv.
Aq. Font. ℥viij. M.

One ounce of this was added to each gallon of water, previously heated to 90°. This was used every night as a pediluvium. Very little alteration was perceived until the seventh day—his sleep then became more composed, and the skin somewhat moister: he also manifested some anxiety, and was sufficiently arous[illegible] to rub his skin, which had now become slightly affected by the bath. In conjunction with the pediluvium, he was ordered to be sponged with the

acidulated water, and to be rubbed with the flesh-brush.—Another week passed without much alteration, except a slight erythematic eruption. No stool for fourteen days. The day following the erythema the patient became restless, and was constantly pressing upon his belly—in a little time he had a copious and extremely offensive discharge from the bowels, resembling tar in colour and consistence; throughout the day he had frequent discharges of the same appearance; he slept well that night, except when called to the chair; his listlessness was, in a measure, destroyed, and he now spoke a few words, not a syllable having escaped from him previously for upwards of three months;—pediluvium continued. A day or two afterwards he had an attack of diarrhœa, accompanied by discharges similar in appearance to yest—at other times like tar. He now became exhilarated and talked incessantly. Proper remedies were directed for the diarrhœa, and the pediluvium and friction continued. Two days afterwards, his mind became more composed—his stools were more natural and less frequent. From this time his health improved—his mental faculties were gradually restored, and he afterwards shipped on board a vessel as steward.

JOHN J. GRAVES, M. D.
BENJ. OGDEN, M. D. } *Comm.*

REVIEW.

ART. I. *An Essay on Venereal Diseases, and the Uses and Abuses of Mercury in their Treatment. Illustrated by Drawings of the different forms of Venereal Eruptions.* By RICHARD CARMICHAEL, M. R. I. A. &c. &c. *With Practical Notes.* By G. EMERSON, M. D. Philadelphia. 1825. 8vo. pp. 360.

AMONG the recent improvements in the practice of physic, not the least conspicuous or beneficial has been the adoption of the non-mercurial treatment in a large majority of venereal affections. It was long held as an incontrovertible opinion among physicians, that mercury was the only remedy capable of subduing every form of disease to which the organs of generation are liable. Even gonorrhœa itself was not excepted from this general rule by more than one respectable writer. Of the utter uselessness of this latter practice, as well as of the evil consequences not unfrequently resulting from it, it is not necessary here to speak. Equally unnecessary, and frequently as injurious, has mercury been found to be in a large variety both of primary and secondary affections, consequent upon infection; and the experience of many enlightened and observing practitioners goes far to establish the conclusion, that in no form of syphilis is mercury indispensable, much less is it a specific for any one of them. The importance and value of this fact, if fully established, will readily strike the mind of any one who has had the misfortune to witness the inefficacy of the indiscriminate exhibition of mercury in the cure of the venereal disease. Such failures have, in some instances, been imputed to peculiar idiosyncrasies of patients; in others, to the existence of a morbid constitution, a tendency to scrofula

or pulmonary consumption. In these latter cases, mercury has not only failed of effecting a cure of the syphilitic affection, but proved positively detrimental to the life of the sufferer. Any means, therefore, of obviating the necessity of a recurrence on all occasions to this article, must be of immense value; and, accordingly, the labours of the Army Medical Board in England, which have most satisfactorily settled this important question, cannot be sufficiently prized. In order to exhibit the extent of information collected on this point by this highly respectable and useful institution, it is only necessary to refer to the circular distributed among the surgeons of the English army, containing a summary of the conclusions on the question of syphilis and its treatment, drawn up in 1819, from the answers of regimental surgeons. From this invaluable document it appears:

1st. That since December 1816 to December 1818, there were treated for primary venereal ulcerations (including the syphilitic chancre of Hunter,) *without mercury*, 1940 cases; and, *with mercury*, 2827.

2d. That of the cases treated without mercury, 96 had secondary symptoms, and of those with mercury, 51.

3d. That of those treated without mercury, its use was resorted to in 77 cases; 12 of which were cases of secondary symptoms, and 65 of primary symptoms. The reasons for its use were sloughing, ulcers in the throat, protracted cure, &c. &c.

4th. That of the 1940 treated without mercury, not one has been discharged the service on account of injury done to the constitution, and not one has failed to regain his health; whereas, two men treated by mercury were discharged on this account.

5th. Secondary symptoms, supervening on the use of mercury, appear to have been more severe and more untractable than where no mercury had been used.

6th. The average period required for the cure of primary symptoms without mercury, and when bubo did not exist, was twenty-one days; and, with mercury, thirty-three. When

bubo was present, forty-five days were required in the first, and fifty in the second cases. So likewise the average period for secondary symptoms, in the first, was from twenty-eight to forty-five days; in the second, forty-five days.

The treatment pursued, where mercury was not used, consisted of—confinement to bed, in many cases—in all, to hospital, spoon diet—occasionally general bleeding—purgatives—antimonials—emollient, soothing applications—cold or warm water, with perhaps the addition of liquor plumbi; in the latter stages, the lotio hyd. submuriat. or muriat. in aq. calcis—lotio sulphat. cupri—argent. nitrat. &c. In the treatment of secondary symptoms, without mercury—purgatives—antimonials—nitric acid—sarsaparilla—the warm bath—the nitro-muriatic acid bath—gargles, when the throat was affected—and in nodes, fomentations, scarifications, leeches, and blisters, were had recourse to.

From this statement it appears, that all kinds of sores, or primary symptoms of syphilis, may be cured without mercury. The following note by Dr. Emerson conveys the highly satisfactory information, that in our own country the same results have been obtained from similar trials.

"To this testimony, from abroad, the editor is happy in having it in his power to add, that similar experiments made by American physicians have been attended with similar results. In Philadelphia, the non-mercurial practice has been tried extensively by Dr. Thomas Harris, Surgeon in the U. S. Navy. Having charge of the Philadelphia Navy Yard Hospital, Dr. Harris possesses an opportunity for making such investigations, far more ample and advantageous than can be afforded by the range of private practice. For nearly six years he has discarded every preparation of mercury from his practice, and asserts that he has ever since found all the forms of syphilis more tractable, and what is of the utmost importance, entirely exempt from secondary symptoms. He further declares that he has found that variety of ulcer described as the true Hunterian Venereal chancre, yield most readily to the non-mercurial treatment. The importance of the subject leads us to indulge the hope, that the Doctor will soon favour the public with a detailed account of his practice, and the results of his experience." 54, 55.

For the first suggestions in ameliorating the treatment of syphilitic diseases, by diminishing the quantity of mercury used, we are indebted to Hunter, Abernethy, and Pearson.

It was, however, reserved for Mr. Carmichael to systematize and reduce to order the scattered observations and ingenious speculations of his predecessors, and to enforce his doctrine with a mass of testimony which is irresistible in itself, and which, if it still wanted confirmation, has most amply received it in the document of which we have already furnished a short but comprehensive abstract. Such confirmation cannot be but gratifying in the extreme to an author, so ardent in the pursuit of knowledge as Mr. Carmichael appears to be; and it should also inculcate a lesson upon those critics who are more anxious to display their own acuteness and superiority, than to regard a new discovery with candour and modesty. One of these prophesied, in a leading journal in Great Britain, that Mr. Carmichael's doctrines "were a premature grasp at generalization, and would not stand the test of experience, but prove to be at variance with more extended observations."

The volume now before us is the second edition, considerably altered and enlarged, of a treatise first published in 1814, and it is enriched with some additional notes by the American editor, Dr. Emerson. This gentleman thus defends his attempt:

"Perhaps there may be some who will think that the editor of the present American Edition has undertaken a useless task in superadding any thing to the work of the author. Although he could, if necessary, adduce many good arguments in favour of his undertaking, he will trust his justification to a very few.

"Plants of one soil usually undergo some variation when removed to another. This order of nature applies with great force to diseases, so that modes of treatment, however well adapted to the climate and other circumstances of one country, are not often perfectly applicable to those of another. Some modifications will, therefore, often be found requisite to accommodate the details of foreign works to new localities. For want of such adaptation, principles and discoveries have been often abandoned which otherwise might have augmented our stock of useful resources. Hence the utility of such comments as serve to point out variations, and to correct or confirm opinions and practice of foreign origin. To this task the editor felt himself strongly inclined, from having for many years followed in the same track with the author. Such in fact has been the success of his practice founded upon similar principles, that, independently of the testimony of other physicians of this country, whose more ample op-

portunities have added the strongest confirmation, he ventures to recommend their general adoption with unhesitating confidence." Preface, p. xi, xii.

The contents of Mr. Carmichael's work are divided into seven chapters. The first treats of those morbid poisons which are most nearly related to the syphilitic, such as the yaws—the sivvens—Canadian distemper—the lepra septentrionalis of Sweden and Norway—and the button scurvy of Ireland. Evidence is then attempted to be brought forward in favour of the existence of venereal diseases which do not arise from the poison of syphilis. The main ground on which Mr. Carmichael rests his arguments on this head, is the characteristic distinction of the true syphilitic ulcer or chancre from all other ulcers occurring on the same parts, by means of the hardened edge and base. This mark he deems peculiar to the former only, and so invariable an attendant on it as never to be mistaken. The extent to which this diagnosis is to be relied on, has been the subject of frequent question among recent writers; and Mr. Hennen more especially, in his invaluable work on Military Surgery, denies its accuracy. Our experience is too limited to enable us to decide between observers possessing such ample means of information; but if we are not much mistaken, the belief in which Mr. Carmichael indulges, in common with many respectable writers, that syphilis is a specific disease, imported by Columbus from this country, has tended very materially to bias his mind on this important question of its specific difference from other venereal affections. Now that this belief, though maintained upon very high authority, is indisputable, we are not disposed to admit; nay, we very much question its accuracy. This is not the place, however, for a discussion of its merits, and we shall therefore content ourselves with referring to a very elaborate and well-written paper on this subject, written by Jourdan, a French physician, and translated by Dr. La Roche of Philadelphia, for some very conclusive proofs in favour of the existence of the true syphilis in Europe prior to the return of Columbus from America. The opinion of the Editor, Dr. Emerson, on this subject, is thus expressed:

"Notwithstanding the ingenious arguments adduced by the author in this chapter, there is still reason to believe him essentially wrong in his principal conclusions. Circumstances of a very decisive nature, lead to a belief in the identity of the source, as well as the great antiquity of all the forms of syphilis, and the consequent overthrow of the original title so long urged in favour of America. That all the forms of syphilis are as ancient as the custom of promiscuous intercourse between the sexes, is by far the most probable conclusion. Contrary to the general opinion, which admits this disease to be communicated and disseminated only by infection from one person to another, there is perhaps no medical fact better established than that it is likewise spontaneously generated by promiscuous venery." p. 37.

In the *second* chapter we are presented with observations on venereal diseases, their specific distinctions, and appropriate mode of treatment. In the course of some preliminary remarks, we meet with the following passages, which will not be lost upon our readers.

"Mr. Chevalier sees nothing of obscurity in a gun-shot wound, which ought to prevent us from treating it according to the general principles of surgery applicable to contused and lacerated wounds; and, therefore, restricts the use of the knife to the attainment of a precise object; such as the extraction of an extraneous body, the suppression of hæmorrhage, or the division of a constricting fascia. And, on the same principles, let us restrict the exhibition of mercury to a precise object; such as the general principles of medical science would authorise, for the cure of the symptoms of a morbid poison without considering mercury as a specific, or the disease for which it is administered incomprehensible, and therefore only a fit object for blind empirical practice." p. 40, 41.

On this passage Dr. Emerson with great pertinency remarks, that "the doctrine and practice here inculcated, may be regarded as a fulfilment of the prediction of the late Professor Rush, who, in his lectures, asserted it as his belief that the time would come when syphilis, like other diseases, would be treated upon general principles."

The next extract refers to some mistaken views entertained by some erudite practitioners with respect to mercury.

"By one of these we learned, that not only the new symptoms which arose under the most severe courses of mercury, but even the old ones which resisted its influence, were attributable to the remedy, and not to the disease. Hence we have descriptions of mercurial chancres, mercurial

ulcers, pains, nodes, and swellings of the lymphatic glands of the neck. But in ascribing those symptoms to mercury, we have entirely overlooked this obvious circumstance, that *that* medicine, when exhibited even to profusion for liver, or any disease which is not venereal, has never in any one instance produced those effects." p. 42.

The following conclusions introduce us, *in medias res*, to a knowledge of our author's views and doctrines:

"From an attentive consideration of a vast number of cases during many years, I find strong grounds for concluding—

"*First*—That the syphilitic chancre is attended by the scaly eruptions, lepra and psoriasis, an excavated ulcer of the tonsils, and pains and nodes of the bones.

"*Second*—That the simple ulcer, without induration, raised edges, or phagedenic surface,—gonorrhœa virulenta, and excoriation of the glans and prepuce, are followed by a papular eruption, which ends in desquamation, pains in the joints resembling those of rheumatism, soreness of the fauces, and frequently swelling of the lymphatic glands of the neck; but that in a vast number, not a single instance was observed, in which nodes were an attendant upon this eruption.

"*Third*—That the ulcer with elevated edges, in the few instances in which I had an opportunity of tracing it to its constitutional symptoms, was followed by a pustular eruption, which terminated in mild ulcers, pains in the joints, and ulcers in the throat, but no appearance of nodes; yet that the instances in which I had an opportunity of witnessing distinctly the connexion between the primary and secondary symptoms of this poison, were too few to form a decided conclusion with respect to this particular.

"*Fourth*—That the phagedenic and sloughing ulcers are generally attended by constitutional symptoms of peculiar obstinacy and malignancy, viz. pustular spots and tubercles, which formed ulcers that spread in general with a phagedenic edge, and heal from the centre; extensive ulceration of the fauces, particularly of the back of the pharynx, obstinate pains of the knees and other joints, while nodes are frequently present, and the bones of the nose are occasionally affected.

"*Fifth and last*—That, when an eruption, no matter what its character may be, is on a surface which is opposed by another, as on the fossa of the nates, upper part of the inside of the thighs, or in the axilla, the spots, if they do not ulcerate, extend into soft, moist elevations of the cutis, which ought to be treated according to the nature of the disease to which they belong. Thus, if they are syphilitic, with mercury; or, if papular, pustular, or tubercular, with the remedies recommended for the specific disorder. According to the established practice, these condylomatous swellings, as they are called, are universally treated with mercury; but I have, in innumerable instances, cured them, and the other symptoms with which they are accompanied, without the exhibition of a particle of that medicine." p. 49–51.

There is one important suggestion offered in the course of this chapter, which deserves attention. Previous to the appearance of Mr. Carmichael's work, all venereal eruptions were described under the vague terms of copper-coloured blotches, scabby spots, and other names equally vague and undefined. At present, the exact and classical nomenclature of Willan is generally adopted, and a more scientific and precise character given to the descriptions of the varying forms of the venereal.

In the treatment of primary ulcers, our author expresses his full conviction, from his own experience, no less than from that of others, that the true Hunterian chancre will heal without the aid of mercury. He adds, however, that its indolent character, and the slow dispersion of its callosity where mercury is not employed, indu e in general to have recourse to that medicine. Such sores are, however, seldom met with; and for the other primary sores our author never uses mercury, except they are very obstinate, and then he administers it "with the same views of altering the action of the parts, as in cases of chronic ill-conditioned ulcers of the leg, or any other part of the body."

In arranging the species of venereal diseases, Mr. Carmichael is guided entirely by the eruption, and on the peculiar character which these present, is the following division adopted: 1st, the Papular Venereal Disease; 2d, the Pustular ditto; 3d, the Phagedenic ditto; and, 4th and last, the Scaly ditto.

Chapter III. *The Papular Venereal Disease.* This is the most simple and least dangerous form of venereal disease, and it is also cured with the greatest ease. The primary symptoms are, according to our author, either first, a simple ulcer, without induration, elevated edges, or phagedena; secondly, a patchy excoriation of the glans and prepuce, attended with a discharge of pus; and, thirdly, gonorrhœa virulenta.

The primary ulcer first referred to, possesses, independently of the negative character pointed out, the following characteristic symptoms:—It exhibits a small pustule on the external prepuce or body of the penis, which lasts for one or two days;

it then forms a thin crust, which soon separates, and exposes an excavated round or oval ulcer with a surrounding redness. This fills up in the second week, rises above the skin, and presents a smooth surface, without granulations, and somewhat fungous in appearance. As soon as the sore puts on this fungous appearance, the process of ulceration ceases, and the surrounding redness disappears; the ulcer continues on an average from three to six weeks from its commencement.

These ulcers are most frequently formed on the glans and internal surface of the prepuce, and they generally excite phymosis. In women, they occur on the labia, perineum, and fossa of the nates.

When phymosis has taken place, it is difficult to ascertain from what source the purulent discharge proceeds, especially when the third symptom, or gonorrhœa, is conjoined with the second, as frequently happens. Indeed all the three affections may co-exist, and from this circumstance Mr. Carmichael deduces the conclusion of their arising all from the same poison. What further confirms this identity, is the fact observed by Whately, in his work on Gonorrhœa, and by Dr. Monro, that the lining membrane of the urethra is affected in gonorrhœa in like manner with the glans: "the discharge does not proceed in either case from the entire surface, but from irregular inflamed excoriated patches, leaving interstices of sound cuticle between them."

All these symptoms, viz. the primary ulcer, the excoriation of the glans and prepuce, and the gonorrhœa, are liable to be followed by a papular eruption, terminating in desquamation. Our author is aware that objections will be raised to the accuracy of this statement, in so far as gonorrhœa is concerned, and he thus anticipates them:

"In support, however, of this position, I beg to state, that I have repeatedly seen men affected with this eruption who asserted positively, that they never had any primary symptoms, except gonorrhœa; and I have also, in numerous instances, seen women affected with the same eruption, who did not, on the minutest examination, exhibit any other primary symptoms than a gonorrhœa, and who asserted at the same time that they never had

primary sores. I at first doubted their veracity, or supposed that ulcers might have existed on the parts of generation, which had escaped their observation; but having met innumerable instances of the same eruption in persons affected with gonorrhœa, combined with a purulent discharge from the glans and prepuce, a little consideration led me to conclude that it was the same disease affecting different parts. This papular eruption, which is occasionally observed to follow gonorrhœa, furnished a strong support to those practitioners who adopted the opinion that gonorrhœa and chancre arise from the same poison. But the facts I have stated, and the analogies I have brought forward, will, I hope, dissipate at least some of the doubts and perplexities attending the subject, and, perhaps, set at rest this intricate and long disputed question." 71, 72.

The *constitutional* symptoms of the papular venereal disease are, more or less of fever, pain in the head, loins, shoulders, and larger joints; pain in the chest, with dyspnœa, followed by an eruption on the forehead, chest, and back, extending also in a scattered manner over the extremities. The fever does not subside on the breaking out of the eruption, but continues as long as fresh crops of the eruption continue to appear.

The *papulæ* are either of a pale red or a crimson colour, some of them simply pimples, while others approach the pustular form. The time of their appearance after infection is uncertain. They do not simultaneously appear, but follow each other in succession; so that on the same patient, some spots appear in their commencement like small pimples; others, which have arrived at maturity, form larger pimples, with acuminated tops, containing pus or lymph; while others, on their decline, consist of exfoliations of the cuticle. Thus, some will be pimples of a deep colour, and others, of longer standing, will be somewhat copper-coloured.

Sore throat is next noticed as a symptom of this affection. It is widely different from that which occurs in syphilis, in which there is a deep excavated ulceration of the tonsils, with little inflammation or difficulty of deglutition. In this form there is soreness, and the deglutition is difficult, and there is an erythematous appearance of the fauces.

The papulæ, after having wholly disappeared, will, in a few cases, re-appear again, and again each successive eruption becoming less, and causing less general derangement. If the

disease has been treated with mercury in its early stages, it becomes more complicated and tedious. The last mentioned symptom is iritis, on which our author is pretty full.

Treatment of the Papular form. The remedies for the primary symptoms are very simple:—the strictest antiphlogistic regimen and diet; confinement to a recumbent position; cathartics and antimonials. The local applications to consist of any astringent wash or mild ointment. If the ulcers are obstinate, mercury in alterative doses will hasten the cure, on the same principle that it heals indolent ulcers of the legs. Dr. Emerson recommends the oxymuriate hydrargyri in doses of an eighth of a grain in both these cases. Mr. Carmichael is in the habit, however, of applying caustic freely to these ulcers, if he is applied to in the early stage, and then directing the patient to keep the ulcer constantly moistened with a solution of nitrate of silver, say three or four grains to an ounce of distilled water. In the second stage, a weaker solution of the nitrate, or the yellow and black washes, or if the ulcers are fungous, the daily application of sulphate of copper, will effect a cure. When the ulcers are on the external prepuce or body of the penis, ointments are most proper—the zinc ointment, either alone, or blended with a third or fourth of the nitrated mercurial ointment. When phymosis takes place, the usual means are directed; a recumbent position; warm water injected frequently between the glans and prepuce; poultices of bread and water to the entire penis, and the antimonial solution in nauseating doses. When the inflammation is violent, and the fever runs high, general bleeding must be had recourse to. Our author does not think local bleeding admissible in this case, as troublesome sores are apt to ensue. In more severe cases, where a part of the prepuce sloughs away, or where matter is formed under the ligament of the penis, a free incision of the dorsum penis longitudinally through the ligament, before ulceration takes place. If this be allowed to take place, the organization of the penis may be destroyed.

"In some instances the matter finds a passage at the corona glandis, and the probe introduced into this opening will pass under the ligament of the penis, often as far as the pubes, at the upper part of which sinus it will be

necessary to make an opening; this will sometimes succeed, and the cavity will gradually close. In other instances, however, amendment will not follow this step; the openings will contract, notwithstanding every attention, so as to prevent the discharge from flowing off, and the confinement of the matter will occasion much pain, and an appearance of pointing on the dorsum penis between the two openings. These tedious, painful, and embarrassing circumstances may be prevented by the timely use of a seton passed from one opening to the other, which occasions a free exit to the matter. As the discharge diminishes, the threads of the seton may be gradually reduced, until it is withdrawn altogether; laying open the entire extent of the abscess with the knife is too severe an operation, and would probably, in the swollen and diseased state of the parts, be followed by sloughing of the ligament, and disorganization of the penis; enlarging the original openings in general only affords temporary relief. But in the mode of treating those cases by seton, I have, in many instances, perfectly succeeded in removing the disease, leaving the state of the parts uninjured." p. 98, 99.

Warts are treated by Mr. Carmichael in a manner peculiar to himself, by the application of acetic acid. One or two applications will suffice, and care must be taken not to injure the surrounding skin. Where the warts have narrow necks, however, the most expeditious mode is to cut them off with a scissors, and then apply lunar caustic to the wound.

The Patchy excoriation comes next to be treated of. This is the most easily cured of all venereal sores; any mild astringent lotion, injected five or six times daily between the glans and prepuce, sufficing. Our author prefers the yellow wash; but weak solutions of acetate of lead or sulphate of zinc will answer.

In the first stage of gonorrhœa, our author relies on antiphlogistic means—chiefly the antimonial solution. In the second stage, terebinthinates are recommended; and none more strongly than the balsam copaiba, in as large doses as the stomach can bear. If the discharge is obstinate, astringent injections, composed of half a grain to a grain of the oxymuriate of mercury in six or eight ounces of lime-water, or the common solution of sulphate of zinc. Mr. Carmichael does not countenance the opinion that these injections ever cause strictures, as insisted on by some.

Should buboes accompany these primary symptoms, the application of leeches and cold lotions, and attention to rest,

are recommended. Mercurial frictions tend, according to Mr. C.'s experience, to increase the inflammatory tendency, and consequently the suppuration. If they are obstinate, blisters repeatedly applied are the best application. When they have suppurated, they should be allowed to break spontaneously, unless the pain is very severe.

The cure of the constitutional symptoms may be safely trusted to nature; but as it sometimes requires several months before they wear themselves out, it is best to have recourse to alterative doses of mercury. When the eruption is ushered in by much fever, the lancet should be freely employed, and the strict antiphlogistic plan pursued. Antimonials and sarsaparilla will then suffice for the cure. But if the eruption lingers, Mr. Carmichael directs pills of antimony and calomel,—the compound calomel pill of the London Pharmacopœia,*—in small doses, with the decoction of the woods. Quietude and rest are all-important; hence the rapidity with which hospital patients are cured.

Our author next indulges in some speculations to prove that the idea of Linnæus was correct, regarding the exanthematous nature of syphilis. The success of his treatment is the best argument adduced in its favour.

Iritis is treated by bleeding, cathartics, and *mercury*.

The chapter is closed with several cases, for which we regret we have not room.

An interesting supplement has been added by Dr. Emerson to this chapter, in which the treatment of strictures, swelled testicles, &c. is considered.

Chapter IV. *Pustular Venereal Disease.*

"The primary ulcer of this disease is characterized by a reddish brown surface, which borders closely on the phagedenic character. Its edges are raised, and well defined. It is not excavated, but is either on a level with the surrounding skin, or considerably raised above it. At its commence-

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* For the satisfaction of those of our readers who are not acquainted with the form of this pill, we subjoin the following from Todd's Conspectus:—Hydrarg. Submur. Antimonii Sulphuret. præcip. āā 3ij.; Guiaci Gum. res. contritæ, 3iv.; Spirit Rectif. 3ſs.—Dose, gr. v–x.

ment it appears in the form of a small pustule, attended with itchiness of the part.

"It may be distinguished from the primary ulcer of the papular disease, by its well defined and elevated edges, and also by the absence of the smooth fungous appearance which characterizes the second stage of that ulcer. From the phagedenic primary ulcer to be described in the next chapter, it may be distinguished by its well defined margin, and from the absence of the irregular and corroded-like surface of that ulcer, and also by its exemption from the painful and acute symptoms by which the phagedenic ulcer is characterized. It may also be distinguished from chancre by its want of the callous edge and base which always attend that ulcer. The ulcers of which we are treating, are most frequently found on the external surface of the prepuce, body of the penis, and occasionally on the scrotum, and occur from the size of the smallest pea, to that of a shilling. Of the former size they frequently form a circle round the orifice of the prepuce, and occasion, when the ulcers heal, a permanent phymosis, which can only be removed by the knife. They are, in general, of a chronic nature, and evince but little disposition to spread." 147, 8.

Mercury always does harm when used for the primary ulcer of this form, or for the bubo occasionally accompanying it. Perfect rest, gentle astringents, antimonials, and sarsaparilla, are all that is required.

Chapter V. *Phagedenic Venereal Disease.* This is a long chapter, not easily condensed into an analysis. We must, therefore, rest satisfied with a few extracts, such as will most pointedly designate to the reader the description of our author.

"The phagedenic ulcer, as its name implies, has a corroded appearance and neither exhibits granulations, or surrounding induration. It spreads sometimes with rapidity, causing the most destructive havoc in the course of a few days; and in other instances creeps on slowly, healing in one part and making progress in another; but unlike a chancre, instead of being checked by mercury, it is almost always rendered more inveterate and rapid in its progress by that mineral. It more frequently attacks the glans penis than any other part; but the ulcer usually proceeds to affect the prepuce, which it often entirely consumes, and continuing its depredations on the corona and glans, at last effects their total destruction. When this event takes place, the ulceration usually receives a sudden and permanent check. At other times, a spontaneous hemorrhage, owing to the destruction of the coats of an artery, occasions a favourable change. The hemorrhage from this cause is often so profuse, that I have frequently found the patient's bed-clothes drenched in blood; and in many instances found it necessary to stop the hemorrhage by ligature. It is an occurrence, how-

ever, that is in general fortunate to the patient, for in those cases the ulceration is often stopped in its progress by this cause alone. More rarely it happens, that notwithstanding every anodyne, and lenient application, the ulceration will gradually proceed, until the entire penis is destroyed. There is also another characteristic of this ulcer worthy of remark, viz. the frequent return of ulceration, after the part has healed, to the very same spot which was at first affected." 162, 3.

Then follows the sloughing ulcer.

"The sloughing ulcer is still more untractable and destructive than the phagedenic: but the surgeon has seldom an opportunity of seeing its commencement, as the disease excites so little uneasiness at first, that, in general, its attack is unobserved even by the patient, until it has existed for several days. A small black spot that resembles a grain of shot in colour as well as in size, is its first appearance; which if seen by the experienced eye of a surgeon, even at this early period, will at once be recognised as a slough or mortification, extending to some depth below the surface. The slough will continue to increase sometimes to only three or four times its original extent, and at others until it engages a considerable portion of the penis, before a line of separation can be observed between the living and mortified parts. When the separation at length takes place, we do not find a clean granulating sore, as occurs in simple mortification; but a corroding phagedenic ulcer, which begins a new kind of depredation on the surrounding parts, equalling the virulence, but not the rapidity of the sloughing process, by which it was preceded.

"Suddenly those parts are attacked by severe pain, and afterwards assume a bluish cast, and on the following day they are found to be covered by a slough; and in this way this destructive malady continues to extend its ravages by alternate sloughing and ulceration, until in one sex the entire penis, scrotum, perineum and pubes are destroyed; and in the other, until the labia, nymphæ, vagina, anus, nates, and I believe even the bladder and uterus, are engaged in one extended and malignant state of putrefaction.

"But if the ulcer is fortunately stopped in its progress, and a portion only of the penis destroyed; the orifice of the urethra becomes so contracted in the new-formed cicatrix, that the urine passes with the greatest difficulty, unless the utmost care is taken to preserve the passage open during the healing of the ulcer." 163—165.

The constitutional symptoms of this form, are—first, an eruption of tubercles or pustules, which quickly degenerate into ulcers with thick crusts, that heal in the centre while they extend at the circumference with a phagedenic border; fever, nocturnal head-ache, accompany this eruption. Secondly,

ulceration of the throat, of a formidable character, commencing in the form of a small white aphthous sore, attacking the velum or posterior pharnyx. If not checked, it involves the whole pharynx, nares, and the bones of the nose. In some cases it has invaded the larynx and epiglottis, and then it proves speedily fatal. Thirdly, severe pains in the joints, knees, wrists, and ankles. Fourthly, nodes. These were only observed, however, in cases treated with mercury. There are other anomalous symptoms occasionally present, as swelling of the testes, &c.

Treatment. Absolute rest in a recumbent position; venesection proportioned to the pain and fever; nauseating doses of antimony, warm poultices of bread and water, fomentations, opium, hyoscyamus, and cicuta. When the irritation has subsided, the solution of nitrate of silver in the proportion of one, two, or three grains to one ounce of distilled water, or the black or yellow washes, will be proper. Spontaneous hæmorrhage, which sometimes is very profuse, will often give an immediate check to the disease. Hence Mr. Carmichael has been induced to procure a bleeding from the ulcer, by paring off the jagged superficies of the ulcer and holding the part afterwards in warm water, and success has generally followed.

Venice turpentine or balsam copaiba, blended with one or two parts of olive oil, are often extremely useful in the sloughing ulcer.

This ulcer, if not soon checked, destroys the entire penis, and frequently involves the scrotum. Hence, if a part of the penis is already destroyed, amputation must be had recourse to.

The treatment of the constitutional symptoms of this form is to be conducted on the same principles as that of the former ones, with especial modifications adapted to the peculiarities of the symptoms in this. Of these we shall now notice a few.

Where the cutaneous affection is characterised by tubercles, the nitrous acid is particularly useful. When the nights are disturbed by pains of the joints, the compound powder of

ipecacuanha is recommended. If the pains are severe during the day, the powder may be given every sixth or eighth hour in conjunction with sarsaparilla.

Mercury should not be given till the disease is on the wane, as indicated by the subsidence of the fever, the healing of the constitutional ulcers, and the termination of recent tubercles or pustules into a scabby desquamation. Then mercury will no longer retard but hasten the cure. The muriate of mercury, or the compound calomel pill, in conjunction with the decoction of sarsaparilla, is the form preferred by our author.

Ulcerations of the Throat. When this affection is slight and not of great extent, local applications of oxymel æruginis, or a solution of the nitrate of silver, in the proportion of from six to ten grains in an ounce of water, or a solution of the oxymuriate of mercury—three to six grains in an ounce of distilled water should be made by means of lint on the end of a probe, or a large camel's hair pencil. If the ulceration is extensive and the uvula is destroyed, recourse should be immediately had to fumigations of the red sulphuret of mercury, employed every fourth or sixth hour, or fumigations of the hydrargyrus cum creta may be substituted. When the nose is affected, the same fumigations should be used, with the additional application, to the affected part, of a liniment or soft ointment composed of one part of the nitrated mercurial ointment to three of olive oil, by means of a camel's hair pencil. The nares should be injected frequently with yellow wash. If the ulceration continue obstinate, mercury must be given internally.

Where the larynx is affected, the case is pretty desperate. Our reliance is to be placed on counter-stimulants applied to the skin, and the internal exhibition of mercury. Blisters do not appear to be sufficiently active. Caustic issues over the thyroid cartilage have appeared to afford relief. If the disease goes on, tracheotomy must be performed.

The last symptoms to be treated of are, pains in the joints and nodes of the bones. The part most frequently affected is the knee-joint, in which the antiphlogistic treatment and lo-

cal depletions must be made use of. Warm fomentations, blisters, and the tartarised antimonial ointment, are also useful. The last is particularly recommended. For nodes, pretty much the same treatment, with the addition of mercury, must be pursued.

Chapter VI. *Scaly Venereal Disease.* Mr. Carmichael considers the description by Hunter of chancre to be strictly applicable to the primary ulcer of this form. We shall not dwell, therefore, on his description of it. Neither shall the constitutional symptoms detain us, as they are pretty familiarly known. The treatment consists, according to our author, in exciting a strong mercurial action, "and to make the constitution feel and suffer under the debilitating effects of the mineral." On this passage Dr. Emerson very justly remarks, that as it is proved beyond a doubt that every variety of venereal may be readily cured without mercury, it appears useless to recommend the use of this article so unrestrictedly.

Among our author's remarks on mercury we find the curious fact related, that females are more easily affected by this medicine than males. On his first appointment to the Lock Hospital, he was accustomed to prescribe a drachm of mercurial ointment nightly for females as well as males. Experience taught him the impropriety of this course, and he reduced the dose, for females, to half the quantity. Mr. C. has also observed, that those who have been salivated several times, will be affected by incredibly small quantities of mercury.

The nitrous acid is recommended in cases of debility and œdematous affections of the legs from mercury.

Mr. Carmichael does not hesitate to admit, that even this form of venereal may be cured without mercury; but he thinks it still differs from the other forms, in being benefited in *all* its stages by the use of that medicine, whereas the others are injured by a too early recourse to it.

In the last chapter are considered some diseases most likely to be confounded with those of venereal origin—such as phlegmonous and erysipelatous inflammation of the penis, herpes preputialis, &c. &c.

We have now brought our extended analysis of this original and valuable work to a close. It deserves attentive perusal and study, and we may add, that the notes of the American Editor will be found not only interesting, but pregnant with useful practical information.

ART. II. *The Institutes and Practice of Surgery: being the outlines of a Course of Lectures.* By WILLIAM GIBSON, M. D. Professor of Surgery in the University of Pennsylvania, Surgeon and Clinical Lecturer to the Alms House Infirmary, &c. 2 vols. Philadelphia, 1825.

IN the preface to this work our author tells us, that it is intended as a *text* book for the use of the pupils attending his course of lectures. "I do not presume," says he, "to offer these 'outlines' to the experienced members of the profession. They are designed exclusively for those young friends in whose interest I take a lively concern, and from whom I have received so many tokens of kindness and respect." After this candid avowal in relation to the objects of this work, it would be ungenerous, and we may add unjust too, to subject it to the same severity of criticism with a work of higher pretensions and of more original character. All that can reasonably be expected, in a production of this kind, is that it should contain a summary of the most approved doctrines of the science of which it treats, expressed in language plain and perspicuous. Generally speaking, Dr. Gibson has accomplished all this in the work before us, in a manner quite creditable to himself and to the school to which he is attached; at the same time that he has occasionally thrown in the results of his own extensive experience, in confirmation of the doctrines which he inculcates. In our notice of the work, we shall endeavour to glean from it such parts as are not strictly elementary, or are peculiar to our author.

Chapter first, treats of inflammation generally and its consequences under the different heads of suppurative inflamma-

tion—ulcerative inflammation—mortification—chronic mortification, and dry mortification.

Chronic Mortification. This is the disease described by Pott as attacking "*the toes and feet.*" In this species of mortification a small bluish spot is first observed on the inside of one of the toes, from which the cuticle speedily separates. From this it gradually extends to the other toes, and from thence to the feet and legs. Sometimes all the toes are attacked at the same time. According to Pott, an uneasiness is generally felt at night in the ankle and foot previous to any discoloration. During the disease, in some cases, the pain is excruciating; in others, there is none. Dr. Gibson alludes to three cases in which the patients were unconscious of the existence of the disease, until one or more of the toes were extensively affected. The progress and duration of the disease varies, being in some very rapid, and in others protracted. "When once the mortification is established, the patient's constitution sinks rapidly. He is very restless, cannot sleep, is often delirious, and complains of spasmodic twitches. The soft parts gradually separate, or are easily detached, and the bones drop from each other at the joints. The smell of the dead mass is often very offensive, and is sometimes complained of by the patient himself." In almost all the cases which Dr. Gibson has seen, death has taken place soon after the mortification reached as high as the ankle. This disease is more frequently met with among the old than the young, and males are said to be more liable to it than females.

The *causes* of this disease are not distinctly understood. The idea of its being the result of ossification of the arteries was originally suggested by Cowper. Subsequent observation has confirmed the fact, that such ossification is occasionally present; but Dr. Gibson thinks that the assertion of Hodgson, "that it is a constant attendant," remains yet to be proved. By Mr. Pott the disease was found chiefly in gouty ubjects. In one of the cases which fell under the notice of our author, the disease appeared to have been occasioned by the lodgment of a needle beneath the nail of the great toe.

The patient's constitution had been previously much impaired by free living.

Our author's remarks upon the *treatment* of chronic mortification we quote entire.

"Formerly, bark was as much employed in this variety of mortification, as in any other form of the disease. It was condemned, however, by Mr. Pott, as useless, if not hurtful; and on this account is now seldom had recourse to. Instead of bark, Mr. Pott recommended opium, which he has praised in the highest terms. I have tried this medicine, however, repeatedly, both in small and in very large doses, and although I have found the pain and urgent symptoms sometimes relieved by its use, I cannot say that it has equalled the expectations held out by Mr. Pott in a single instance. A female patient, 35 years of age, in the Alms-House, last summer (1822) suffered for several weeks under this complaint. I commenced with moderate doses of opium, and gradually increased the quantity until she took five hundred drops of laudanum every twelve hours; yet little relief was experienced, and she died some weeks after in a dreadful condition. Bark also was given, both in substance and in the form of extract, without any advantage. Another woman, in the same Institution, whom I attended for the complaint, at the same time, was cured (with the exception of the loss of the greater part of the foot), I have reason to believe, by large doses of volatile alkali and by camphor, after opium had failed. Dr. Kirkland condemns the use of opium in large doses in this disease, and says that he has often known the mortification removed under the use of anodyne topics, when its internal use was discontinued, because it brought on delirium and took away the appetite. The same practitioner seems to depend, rather upon mild nutritious articles of food, than upon medicine, for the cure of this complaint.

"Various local applications may prove serviceable,—not in stopping the disease, but in relieving pain, and in keeping the parts moist and free from fœtor. Milk alone, or milk and water, moderately warm, and frequently applied, will be found very grateful to the patient's feelings. A bread and milk poultice I have used in several cases with advantage, where the carrot and turnip poultices gave pain. Dr. Dorsey states, "that in the only case he ever saw, the application of a blister produced an immediate termination of the mortification." In the worst of the Alms-House cases mortification followed the day after the blister was applied, and in a part apparently sound before its use;—in the other no benefit appeared to result, although the blister was applied repeatedly for several days. Blisters have been known to bring on mortification in other diseases, under particular circumstances, and however useful they may prove in common gangrene, I should not feel inclined, from what I have seen, to recommend them in chronic mortification. When the complaint occurs in people considerably advanced in age, I believe that all our efforts will prove unavailing. Amputation has sometimes been resorted to,—but generally without effect." 31—34.

Dry Mortification. This species of mortification differs from that just noticed. Without any previous swelling, redness, or pain, the toes and feet lose their heat, become shrivelled, discoloured, and finally converted into a hard, dry, insensible mass, of a dark blue or very black colour. In general, no sloughing takes place; on the contrary, each part retains its original form—the skin remains entire, and the nails adhere to the toes. To the touch the whole affected part feels cold, as hard as a common smoked tongue, and is perfectly free from fœtor. Such is the general course of this disease. In some cases, however, it commences with a burning sensation, and is accompanied with much pain. The fœtor and sloughing too occasionally are very great. Sometimes constitutional symptoms attend; most usually they are not present, and the disease continues its course until a line of separation is found. It seldom extends higher up than the knee.

The most common *cause* to which this disease is owing, is well known to be the use of *spurred rye*, or *ergot*. Dr. Gibson alludes to several interesting facts which have occurred in this country, in confirmation of the experiments made in France by M. Tessier, to show that this disease was induced in cattle by the use of the ergot. It sometimes, however, originates, according to our author, from other causes.

"I have met with two or three examples of the genuine dry mortification in this country, neither of which, as far as could be determined, arose from the spurred rye. In one instance, the disease appeared to be the consequence of fracture—the patient at least had received a fracture of both thighs, and of the left leg, from which he recovered in four or five months. At the end of that time, a dark spot appeared on one of the toes of the right foot, spread from thence to the other toes, and finally involved the greater part of the leg, which became perfectly cold, insensible, dry, hard, withered, and of a deep purple colour. The skin remained entire, except at the upper part of the leg, where it sloughed, along with a portion of the muscles. In this condition the patient remained several months longer, without pain or material injury to his general health, when I was requested to visit him at York, Pennsylvania, in consultation with Dr. Spangler of that place. It was decided that amputation alone could afford relief. I accordingly performed the operation (on the 16th January, 1816,) immediately below the knee, and with complete success. Ever since that period

the limb has remained in my surgical cabinet, exposed constantly to the air, is now perfectly free from fœtor, as it was indeed at the time of the operation, and has never since undergone the slightest change. There is every reason to believe, in this case, that the mortification was the result of the different fractures, for upon repeated inquiries, no evidence was afforded that the patient had ever lived upon damaged grain of any description: on the contrary, he was a wealthy farmer, and had always used the most wholesome articles of food.

"The dry is not so fatal a disease as the chronic mortification. Where it has prevailed endemially, however, very few have recovered. In favourable cases, and in young subjects, amputation has often succeeded, and under any circumstances must be considered the only remedy."—38—40.

Chapter second, treats of the "varieties of inflammation," and under it are noticed, erysipelas—furunculus—anthrax—pernio—frost-bite, and burns.

Erysipelas. In the treatment of this disease, Dr. Gibson expresses a favourable opinion of *blisters*, and says, that although in numerous instances he has covered the inflamed part with a very large blister, yet he never has seen any troublesome sores follow their application. Of all the local applications our author, however, prefers the *mercurial ointment*, the use of which, in this disease, is a practice strictly American, and originated with Drs. Little and Dean of Chambersburg, Pennsylvania. In relation to the preparation of this ointment, we are furnished with the following important practical suggestion.

"A practice very commonly prevails, in the preparation of this medicine, of mixing with it turpentine and other stimulating ingredients. The ointment, thus prepared, if used in erysipelatous inflammation, will increase rather than alleviate the disease; but when divested of such materials, speedily relieves every urgent symptom, especially in that troublesome form of the complaint which so frequently attacks the face." 45.

In relation to the use of starch, flour, chalk, &c. &c. as external applications, we agree with Dr. G. in condemning them, as generally useless and not unfrequently injurious, "by mixing with the fluids discharged from the vesications, and forming crusts or scabs, which irritate the subjacent skin."

Anthrax. In the commencement of this inflammation Dr. G. recommends a poultice as the best application. When openings form and the discharge commences, he advises Dr. Physick's practice of applying the caustic vegetable alkali.

"The caustic gives some pain, but this soon subsides, and the severe burning pain, peculiar to the disease, is from that time entirely removed. Dr. Physick, to whom we are chiefly indebted for our knowledge of the proper application of this remedy, states, that 'in all the cases in which he has used the caustic in this manner, the suffering of the patient ceased as soon as the pain from the caustic subsided.' It should be recollected then, that the caustic will prove hurtful in the commencement of carbuncle, but extremely beneficial in the second stage, or at that period when openings form in the tumour. From inattention to these circumstances, there is reason to believe much mischief has resulted—from deep ill-timed incisions, from the actual cautery, and from caustics, which have long been employed, at an improper period, especially by the French surgeons." 52.

Chapter third, is devoted to the subject of wounds. They are divided into incised—punctured—penetrating—contused—lacerated—poisoned, and gunshot. The whole of this chapter is satisfactory, and the section relating to poisoned wounds, contains an interesting detail of facts concerning various animal poisons. We have only room for the remarks upon the effects of the wounds from the two American serpents, the *Rattlesnake* and the *Copperhead.*

"Of the numerous American serpents two species only are known to be venomous—the *rattlesnake* and *copperhead.* Eight species of the former have long been familiar to naturalists, and two others have been discovered lately by Humboldt* and Bonpland. All are poisonous, but in particular the *crotalus durissus, horridus,* and *miliarius.* The copperhead, (*boa crotaloides,*) sometimes called the bastard rattlesnake, is also exceedingly malignant. All these reptiles are furnished with long teeth, or poisonous fangs, the roots of which are surrounded by a bag or reservoir containing an active and virulent poison. This poison is discharged into the wound through a small fissure of the tooth situated near its extremity, and in many instances very quickly proves fatal both to man and to the inferior animals. As regards the effects of the poison, much will depend upon the size of the

* These are the *Crotalus Cumanensis* and the *Crotalus Læflingii.* See Recueil d'Observations de Zoologie et Anatomie Comparee, 4to.

animal bitten—death being produced more readily in the smaller than in the larger animals. According to the experiments of Vosmaer, sparrows, finches, and other small birds, died in about four minutes, while a mouse died in a minute and a half. The deleterious operation of the poison will also depend materially upon its quantity, and upon the season of the year at which the wound is inflicted. To ascertain the effect of the bite of the rattlesnake, several experiments were made by Captain Hall of Carolina, upon dogs, cats, chickens, and frogs. Three dogs were bitten in succession by a snake four feet long. The first died in less than a quarter of a minute, the second in two hours, and the third in three hours. Four days after, two other dogs were bitten: one of which died in half a minute, the other in four minutes. Several experiments, nearly similar, were made by the late Professor Barton on chickens. Of three chickens bitten, on three days successively, one died in a few hours, another lived much longer, and the third recovered after having been exceedingly swelled. On the fourth day, several other chickens were bitten, but recovered without a bad symptom.

"The rattlesnake is more lively, and its venom more active, during very warm weather than at any other period: upon the approach of the cold season, it becomes languid, and then strikes reluctantly, and frequently without any ill consequence. The effects produced by the poison either on the human body or on the lower animals, vary according to the parts wounded, the depth to which the fang penetrates, and the quantity and strength of the venom in the reservoir. In many instances death follows in a few seconds or minutes, and in others not until many days or weeks. The interesting case detailed by Mr. Home, which I witnessed whilst a student in London, furnishes striking proof of the speedy operation of the poison of the rattlesnake, and at the same time affords incontestable evidence that it may remain a long time in the system before death is produced. The patient was teasing a large rattlesnake with the end of a foot rule, but could not induce the animal to strike; the rule accidentally dropping from his hand, he opened the door of the cage to take it out; the snake immediately darted at the hand, and inflicted four wounds—two on the back part of the first phalanx of the thumb, and two on the side of the second joint of the forefinger. The hand soon after began to swell, and in the course of ten or eleven hours the whole arm, axilla, and shoulder were very much tumefied and cold. There was an unusual coldness also throughout the skin of the whole body. At this period the mind of the patient was perfectly collected; but immediately after the accident he talked incoherently, owing probably to strong drink, which it was ascertained he had taken before he was bitten. From the axilla the swelling extended down the side, and blood was extravasated under the skin as far as the loins, giving the back a mottled appearance. The skin over the whole body became warm, faintings occurred repeatedly, vesications appeared in different parts of the body, a large abscess formed on the outside of the elbow and discharged half a pint of reddish matter; mortification took place in the axilla, in the

forefinger and some other parts, and finally destroyed the patient, after he had laboured for eighteen days under the most distressing symptoms. Upon dissection the body presented a natural appearance (with the exception of the arm that had been bitten), and the wounds made by the fangs of the reptile had healed.

"Instances have occurred, both among the Indians and among the white people, who inhabit the mountainous and thinly settled parts of our country, of almost instantaneous death from the bite of the rattlesnake. On the other hand, it is very certain that many persons wounded by this animal have sustained very trivial if any injury. In such cases, it is probable that the teeth enter obliquely and do not penetrate the true skin, or that the reservoirs at the roots of the fangs have been empty, or the virus itself, owing to particular circumstances, so modified or changed in its properties, or in such small quantity, as not to produce fatal effects. Again,—where death has followed almost immediately or shortly after the wound, the poisonous fangs have probably penetrated directly a considerable artery or vein, and conveyed the noxious matter at once into the circulation. According to Catesby, the Indians very soon ascertain when this has happened, and apply no remedy, under an impression that the wound is necessarily fatal. Upon these principles it will be easy to account for the supposed good effects of the numerous and diversified remedies, at different times proposed for the cure of the bite of the rattlesnake; inasmuch as there is reason to believe that nature, unassisted, is often sufficient to accomplish a cure, or that a sufficient quantity of virus has not been inserted to produce death.

"The poison of the rattlesnake is of a yellow colour, tinged with green; during extreme heat, and particularly in the procreating season, it becomes of a much darker hue. The *copper-head* is equally poisonous with the rattlesnake, but few experiments have been made to ascertain its peculiar characters." 103—109.

Wounds of the Joints. In the short, though instructive chapter on this subject, we notice, as important, the following suggestion in relation to the treatment.

"But besides the treatment pointed out, there is one auxiliary, not yet mentioned, of immense value, especially in the early stage of all inflamed joints—*position*. If the knee is wounded, for example, the limb should be extended, and at the same time *considerably elevated*, in order to drain the blood from it as much as possible and thereby lessen the inflammation. For this purpose pillows, or an inclined plane well covered with quilts, are placed beneath it; or what generally answers a better end, the foot of the bedstead is raised by blocks to the necessary height. Nothing can be more effectual than this simple plan in all injured or diseased joints, and for a knowledge of it the profession is chiefly indebted to Dr. Physick. The limb is kept *extended*, in order that it may prove more useful to the patient, in case anchylosis should ensue. A contrary position ought, how-

ever, to be assumed in wounds of the elbow joint, and for obvious reasons." 195, 196.

Chapter fourth, embraces the consideration of abscesses in particular parts of the body: as abscess of the antrum maxillare—mammary abscess—hepatic abscess—lumbar abscess—femoral abscess—paronychia, or whitlow.

Mammary Abscess. A variety of this abscess, particularly noticed by Hey, has fallen two or three times under the notice of Dr. Gibson, and is thus described:

"It begins like the common mammary abscess, but verges with less rapidity towards suppuration. The matter is often discharged from several openings, and these openings become fistulous and lead to narrow sinuses, which wind in every direction among the cellular membrane and glands of the breast. These sinuses, when opened, are found nearly filled with a soft purple fungus. The disease may last for a very long time, and indeed there is reason to believe will never get well spontaneously, but gradually continue to grow worse until the patient's constitution is worn out by hectic." 205, 206.

In this abscess "it is recommended to lay open each sinus completely; without which, it is stated, a cure cannot be accomplished. If I may judge from the result of two very extensive and obstinate cases of the disease, which fell under my care a few years since, this severe proceeding may be dispensed with, and a *seton* substituted in its stead. Both patients recovered under this treatment in a very short time. A separate seton was placed in each sinus." 207.

Lumbar Abscess. In relation to this affection our author makes the interesting observation, that it is rarely met with in the United States. In confirmation of this remark, he states, that only four cases of it have come under his notice during the last thirteen years, although he has been professionally connected with extensive hospitals and alms-houses during the greater part of that time. In Great Britain on the contrary, he adds, the complaint is so frequent, that it is hardly possible to pass through the wards of any common infirmary without meeting with several cases. Dr. Physick never met with a case of it in America unconnected with disease of the spine.

Paronychia. Dr. Perkin, of Philadelphia, has met with great success in the management of this troublesome affec-

tion, by a mixture of equal parts of corrosive sublimate and white vitriol, applied to the part on lint steeped in tincture of myrrh, and suffered to remain for several days.

For the removal of that species of whitlow denominated by Mr. Wardrop *onychia maligna*, Dr. Gibson says, that "Mr. Wardrop recommends the evulsion of the nail and subsequent application of caustic." Although Dr. Gibson refers to the paper of Mr. Wardrop on this subject, we should judge that he had not read it very carefully. Mr. Wardrop recommends the internal administration of mercury carried to an extent sufficient to affect the gums. Our own experience confirms the efficacy of this treatment.

Chapter fifth, contains a condensed view of the subject of ulcers. The following observations, with which the chapter opens, are so judicious, that we are tempted to quote them entire.

"There is no class of surgical diseases in which the student should feel a more lively interest than that of ulcers—both in a pathological and practical point of view. In the one case, he has fair opportunity to speculate upon the important processes of animal decay and reparation; in the other, to exert his utmost ingenuity to overcome difficulties which the best surgeons in every age have felt and acknowledged—the obstinate, and oftentimes intractable, nature of the complaint. Strange as it may appear, however, so little attention is paid by most students to this department of surgery, that it is hardly possible for the prescribing surgeons, or clinical lecturers, in the Philadelphia Alms-House, (one of the finest establishments perhaps in the world, as regards the number of patients and the variety of disease) to interest a class by any observations they may make on the subject, or by any cases they can exhibit. But this feeling, amounting almost to prejudice and disgust, is not peculiar to the members of the profession in this country; it is noticed and complained of every where, and arises doubtless from the loathsome condition in which ulcers are generally found —such diseases being most common among the lower orders of people, especially the intemperate and filthy. There is another reason too, I am convinced, which has had great influence in preventing that attention to ulcers they deserve—the unsatisfactory, complicated, and adverse distinctions made by almost every writer. This is so conspicuously the case, that the student can hardly take up any common treatise on the subject without finding himself immediately involved in a labyrinth of perplexities; and if he proceed so far as to understand, as he supposes, the views of the writer, and attempts to apply them to practice, all his conceptions vanish in a moment, and he only knows that there is an ulcer before him, without being

able to say to what class or species it belongs. This confusion, it appears to me, has arisen from the numerous appellations given by authors to ulcers of the same character, and from very trifling and oftentimes accidental varieties being dignified with the name of *species*. Thus the *simple purulent* ulcer, and the *simple vitiated* ulcer of Mr. Benjamin Bell, are the *healthy* and *irritable* ulcers of Mr. Home. Again—what Mr. Home describes *as an "ulcer in parts too weak to carry on the actions necessary for its recovery,"* is called by Mr. Burns the *overacting* ulcer, and by common writers the *fungous* ulcer. The name of *inflamed* ulcer has sometimes been substituted for *irritable* ulcer, and *callous* ulcer for that of *indolent* ulcer.—These contrarieties, however, are pardonable and unimportant compared with others which have been adopted almost universally—such as the *sinuous* ulcer, the *carious* ulcer, the *fungous* ulcer, the *sloughing* ulcer. These, it must be evident to any practitioner much accustomed to the treatment of ulcers, are accidental symptoms merely, or at farthest, variations which are not peculiar to any particular species, but may accompany or follow all." 228—230.

To obviate these objections, Dr. Gibson divides ulcers into three classes—*healthy*, *unhealthy*, and *specific* ulcers. The first comprehends only one species, which is called the *simple* ulcer. The second contains two species—the *irritable* and *indolent* ulcer. The third embraces ulcers from specific diseases, such as scrofula, cancer, fungus hæmatodes, and syphilis; also, the syphiloid, scorbutic, herpetic, and contagious ulcer, usually denominated hospital gangrene.

Want of room compels us to close, for the present, our analytical notice of Dr. Gibson's work. We shall conclude it in our next.

QUARTERLY HISTORY

OF

IMPROVEMENTS IN MEDICINE AND SURGERY.

Foreign.

ANATOMY AND PHYSIOLOGY.

Lachrymal Nerve.—It is stated in the Medical Repository, on the authority of a private letter from Paris, that M. Amusat has discovered the lachrymal nerve to be a branch of the pathetic, or fourth pair, and not, as has been hitherto supposed, of the ophthalmic portion of the fifth. It is stated also, that Richerand confirmed the fact. If this turns out to be true, it will be extremely interesting when taken in connexion with the late splendid discoveries of Mr. Charles Bell.—*Anderson's Med. Journal.*

Dr. Meyer on Chyle in the Veins of the Jejunum.—The author, who is a Professor in the University of Bonn, gives the following singular case:

"A robust man, about seventy-nine years of age, died suddenly in consequence of asthma; and his body was taken to the dissecting-room. This man had been healthy from his youth: he had never suffered from any severe illness; only, in the course of long military service, he had experienced some cutaneous affections, particularly the itch. He was a great brandy drinker. About six months before his death, he had complained of his chest, of palpitations of the heart, of jaundice, with symptoms of dropsy; but, by proper remedies, he was so much recovered as to return to his usual habits. At the end of three months, his dropsical symptoms returned, with a purulent expectoration, and œdematous feet. He again became a little better; but shortly afterwards he suddenly felt violent darting pains in the chest, with violent cough, and other symptoms of inflammation of the lungs. He was bled, and the blood exhibited the buffy coat. He felt relieved the following day; but, a few hours after having taken some soup, he died suddenly.

"The examination of the body showed the following particulars:—A great quantity of serum in the chest, as well as in the pericardium; the lungs adhering to the parietes of the thorax, and full of tubercles, with small cysts containing pus. There was no remarkable alteration in the viscera of the abdomen. The intestines were then taken out, and preserved for the purpose of demonstration. When the different portions of them

were submitted to especial examination, on the small intestines vessels of a greyish white were perceived, a little inclining to yellow in some parts, and equally visible on the internal surface of the canal as on the outside. At first they were taken for lymphatics; but a closer examination proved them to be veins. The lower third of the duodenum, the entire jejunum, and a portion of the ileum, were spread over with similar venous ramifications, containing a liquor analogous to cheese: nevertheless, this liquor only existed in the minute ramifications upon the surface of the intestines; but, at the spot where the mesentery is inserted, the venous trunks to which these smaller vessels conducted, contained only common blood. Upon many points might be seen, with the naked eye, the little roots of the white veins advanced to the edge of the valves of Kerking; and it appeared to the Doctor that, pressing lightly, he drove the white liquor contained in the venous branches to the surface of the mucous membrane. The small intestines were full of chyme. No lymphatic filled with chyle was to be found. Unfortunately, the other abdominal organs were not in a state to permit of examination.

"It is not to be doubted, continues Dr. Meyer, that the greyish liquor, which was contained in the smallest branches of the veins, was truly chyle, the colour and consistence of which are in general relative to the quantity of chyme. But it may be asked, how did it happen that the lymphatic vessels contained no chyle, since the patient appeared to have died in the moment of chylification? Circumstances do not permit him to resolve this question; but he conjectures that the venous system may have outlived the lymphatic. Perhaps the right side of the heart had outlived the left; in this case, there would have been a prolonged diastole and systole of the right ventricle, which might have determined the absorption of the chyle by the smaller venous branches of the small intestine. The appearance of the heart rather corroborated this hypothesis."—*Ib.*

THEORY AND PRACTICE OF PHYSIC.

[We commence publishing in our present Number, a paper containing the results of the long and ample experience of one of the most distinguished Medical men of the age, the late Dr. Baillie of London. Our readers, we do not doubt, will concur with us in considering it a rich legacy bequeathed to our profession by its estimable author.—Ed.]

Some brief Observations drawn from my own Experience upon a considerable number of Diseases.

I have now practised as a physician for more than thirty years, and have, for the greater part of that time, been so much occupied with visiting patients, that I have seldom been able to write notes of individual cases. It has occurred to me, however, that some advantage might be derived from my leaving a short record of the results of my experience in a considerable number of diseases.

I am convinced that the most successful treatment of patients will depend upon the exertion of sagacity or good common sense, guided by a

competent professional knowledge; and not by following strictly the rules of practice laid down in books, even by men of the greatest talent and experience It is very seldom that diseases are found pure and unmixed, as they are commonly described by authors; and there is almost an endless variety of constitutions. The treatment must be adapted to this mixture and variety, in order to be as successful as circumstances will permit; and this allows of a very wide field for the exercise of good common sense on the part of the physician. A physician who should be guided strictly by the rules laid down in books, would be a very bad practitioner. In the following short observations on the treatment of various diseases, I shall state impartially the result of my experience, without entering into any speculative reasoning, which is often very fallacious.—*Hanger Hill, July* 22, 1819.

Complaints of the Head.

Many persons of both sexes are affected daily with headaches, of more or less severity, for many months, and often for some years. They chiefly prevail towards the middle time of life, but occur often at an earlier period. They may take place in any part of the head, but are more commonly felt in the forehead, or over one eye, or in the back part of the head. Such headaches I have found in general to be very little benefited by bleeding, either general or topical. In the accounts which patients have given me of the effect of this remedy, they have said that they have either received from it no benefit at all, or that it has lasted but a few hours; or that the headaches have even been worse after cupping, or the application of leeches. I have generally found such headaches to be most benefited by temperate living, great attention to avoid improper diet, purgative medicines, and bitters. The best common medicine is rhubarb and soap, in such doses to give two motions daily. A few grains of calomel, with an aperient draught, such as an infusion of senna with a drachm or two of Epsom salts given occasionally—as, for instance, once in a fortnight or three weeks—are sometimes of much use. A due degree of exercise taken daily, both on foot and on horseback, is likewise in some cases very serviceable. Some headaches I have known relieved by nervous medicines, but not frequently. In some cases this complaint is relieved by no plan of medicine or management whatever, but will gradually, after some months or years, subside. The seat of such headaches is, I believe, in the scalp, and not in the inside of the cranium. They depend chiefly for their cause upon the state of the stomach and bowels, or upon an irritable state of some of the nerves of the scalp. In most headaches of severity, it is right to make one or two trials of the effect of topical bleeding; but not to persevere in the repetition of this measure for many months, as is often done, even though it produce no benefit.

The cutting the hair of the scalp very short, and the application of cold, by a large sponge wrung out of cold water and applied to the upper part of the head, will often give great temporary relief when the skin has been previously hot.

Apoplexy.—This disease, in its most severe form, depends commonly upon blood being poured out into the substance of the brain from some ruptured blood-vessel. This generally takes place in the medullary substance, near one of the lateral ventricles, but it may occur in any part of the brain. The milder forms of apoplexy depend upon a distention of some of the vessels of the brain, from an undue accumulation of blood in them. I have known, however, one instance of fatal apoplexy, where many of the blood-vessels were found, upon examination after death, to be much distended with blood, but no blood had been extravasated in any part of the brain.

The chief remedy in apoplexy is large bleeding, to be repeated according to circumstances. Topical bleeding by cupping and leeches is likewise often of use. The next remedies in importance, are purgative medicines of considerable power, and acrid glysters. The head should be kept high or elevated, and cold may be applied with advantage to the top of the head. If the patient should recover by these means, the best plan of management, in order to escape from another attack, is to live almost entirely throughout future life upon vegetable food, and to abstain from wine, spirits, and malt liquor. It will be of considerable advantage to avoid any strong or long-continued exertion of the mind. In a few instances, when the full state of the vessels of the brain had for some time subsided, I have derived considerable advantage from the moderate use of tonic medicines, and more especially of steel.

Hydrocephalus.—I have known in my own experience but one instance of this disease being cured, when fully formed. In this case all the symptoms were well marked, and the disease had made such progress that squinting and an irregular pulse had taken place. There had been no peculiar treatment, except that mercurial ointment was applied daily to a considerable sore on the upper part of the head, which had been produced there by a blister. The individual is now alive, and is a young lady of good talents, which she has highly cultivated.

I have seen a few cases in which there appeared to be a strong threatening of hydrocephalus, that got well by the application of leeches and blisters to the head, and brisk mercurial purges; but I cannot determine whether these cases, if less actively treated, would have terminated in true hydrocephalus or not.

Epilepsy.—This disease appears to me to have become much more frequent within the last twenty years than formerly. If this remark be generally true, it may perhaps be accounted for by the progress of luxury, which must render the nervous system more irritable. I have known very few instances of epilepsy radically cured; but a considerable number of cases in which the intervals between the attacks have been rendered much longer. The medicines which have appeared to me to have most influence in removing or retarding the attacks of epilepsy, have been the argentum nitratum, viscus quercinus, and the oleum succini. Of these, the first is the most powerful; but, when it has been used for a good many months, it

tinges the skin of some individuals of a dark colour. I have known two instances of this effect from it in my own experience. The bowels, too, should always be kept open, and the effect of brisk purgatives should be tried in the beginning of the disease.

It is of great use, in the treatment of epilepsy, that the patient should live very temperately, and should avoid every thing which may tend suddenly to excite or to harass the mind. Patients should eat animal food sparingly, and should abstain from wine, ale, and porter altogether. The hair should be cut short, and cold applications should be applied to the head whenever the skin of it feels hot. This management is often of much use in rendering the attacks both less frequent and less violent. The causes producing epilepsy are various; but I believe that in this disease, there is constantly a tendency to a greater accumulation of blood than is natural in the vessels of the brain.

The Tic Douloureux.—The tic douloureux seems to me likewise to have become more common of late years, and I think it is more frequent among men than women. I do not recollect to have seen any instance in which it has been permanently cured, either by internal medicines or by an operation. I have known some instances of its being cured for a time (that is, for several months, or even a year,) by medicines; and those which have appeared to me of most use, are Peruvian bark and arsenic. The operation of dividing the nerve, has in some instances prevented a return of the disease for one or two years, but has not, as far as I know, prevented it permanently. The courage and patience under suffering in this complaint, displayed by some individuals, have been truly astonishing.

Of some Diseases of the Neck.

The most common disease in the neck, is the swelling of one or more lymphatic glands. This is most apt to take place in young persons who have fair complexions and delicate constitutions. It is always a very tedious disease, and is seldom much benefited by medicine. The remedies which I have found of most use, have been sarsaparilla combined with soda, Peruvian bark combined with soda, and some form of steel. These medicines will, however, often have but a very imperfect influence upon the complaint. Sea air and tepid sea-water bathing are often beneficial; but I think that the air and waters of Malvern are more useful than any other remedy. I have known a good many cases which had been but little improved by the common remedies, and by a residence upon the sea-coast, with all its advantages, which have afterwards got quite well by the patient's residing three or four months at Malvern.

Bronchocele.—This disease is not very uncommon in this country: it is more frequent among women than men, and much more so among young than old persons. It is not often much benefited by medicine, but will frequently disappear of itself. Sometimes the swelling grows, even in this country, to an enormous size; and I have known one or two cases in which the patient was destroyed by the swelling compressing the trachea and the œsophagus. The medicines which I have found of most use have been

burnt sponge, soda, and mercury, used externally, either as an ointment or in the form of plaster.

Chronic Inflammation of the Larynx and Trachea.—This disease occurs frequently in this country, and, upon the whole, I think is more common among men than women. It is often confined to the inner membrane of the larynx and the upper part of the trachea; but frequently it spreads downwards, even to the inner membrane of the bronchia. This disease always continues several months, and often, with short intervals of amendment, for years. Not unfrequently it lays the foundation of future phthisis. Remedies generally produce only a very gradual influence upon the disease, and sometimes none at all. Benefit is not unfrequently derived in some degree from the repeated application, at short intervals, of leeches to the fore-part of the neck, or the skin covering the upper bone of the sternum. The frequent application of small blisters to the same parts will occasionally be of use; but perhaps the most useful remedy is a small seton inserted under the skin of the side of the neck, very near the larynx. Internal medicines often produce very little good effect; but the medicine which I have found, upon the whole, to be the most beneficial, has been the extractum conii. I have sometimes directed five grains of it to be taken three times a-day for many weeks together, with manifest advantage.

Of the Quinsy.—I have but one observation to make with regard to this disease, which is of some little importance. It is usual to endeavour, throughout the course of it, to prevent suppuration from taking place, by the repeated application of leeches under the angles of the lower jaw. It is certainly very desirable that suppuration should be prevented, and that inflammation of the tonsils should gradually subside by resolution. I have found, however, by experience, that suppuration is by such means very often not prevented, but only that inflammation proceeds more slowly to this issue. Hence the patient suffers for a considerably longer time; and the suffering in this disease is often very great. If, therefore, one or two applications of leeches do not lessen materially the inflammation of the tonsils and velum pendulum palati, I should recommend the progress of the inflammation to be encouraged by the inhaling of warm vapour into the mouth, and the application of poultices to the external fauces. In this way the disease will go through its progress more quickly, and the patient will suffer much less.

Of some Diseases of the Chest.

I have very little to say either with respect to pleurisy or peripneumony. The earlier, after inflammation has taken place in the pleura or in the lungs, that blood is taken away from the arm, the sooner will the disease be subdued. Blood should in these diseases be taken away largely, and, if necessary, should be repeated again and again after short intervals. All other remedies are insignificant in comparison of the abstraction of blood from the system.

When this remedy has not been applied early enough, nor in sufficient quantity, and an abscess has been formed in the lungs, which has burst,

patients have, in the greater number of instances that I have seen, recovered but very slowly. Under these circumstances, the medical attendant has little to do but avoid mischief. The constitution should be moderately supported, without being too much stimulated. Moderate doses of myrrh, decoction of bark, or infusion of some bitter, are sometimes of use. Light animal diet, and even a little wine, are sometimes useful in such cases; but great care should be taken that no new inflammation be excited.

In the course of my experience throughout many years, I have known a few instances of abscess being formed in the lungs, without any previous pain in the chest, or difficulty of breathing, or observable fever. Such patients, upon some exertion of the body, or even without any exertion, have suddenly coughed up a considerable quantity (perhaps half a pint or more) of pus; and this has been to the patient the first intimation of disease. In such cases the inflammation of the lungs must have proceeded so slowly as to have produced little or no pain in the chest, and not to have alarmed the constitution so as to excite fever.

Of Phthisis Pulmonalis.—In the course of my medical experience, I have known one or two cases of patients who recovered from phthisis which was apparently fully formed. It is probable, however, that with regard to these cases I may have been mistaken; and that, if I had inquired with sufficient accuracy into their history, I should have found that they were small abscesses of the lungs, of a common, and not of a strumous nature.

I have known a good many instances in which persons threatened with consumption have recovered by going into mild climates, or even into Devonshire or Cornwall; but I do not recollect a single instance in which they recovered when the disease had decidedly been formed. Change of air should be adopted very early, in order to give it the best chance of success. Such a variety of accounts have been given by patients, and even by medical gentlemen, of the comparative advantage of one place over another abroad, that I have found it impossible to decide which is to be preferred. I am disposed, however, to think that Madeira, the Hyeres, some parts of Portugal, Malaga, Nice, and Naples, are the best. It is very possible that different places may suit better with the constitutions of different individuals; and this conjecture, if well founded, may explain the cause of there being such a variety of opinions upon this subject. A patient should, if possible, spend two or three successive winters abroad, in order to give the best chance of the disposition to the disease being subdued.

When no active inflammation is going on in the chest in phthisis, I have sometimes found advantage from patients being allowed to take a little white fish or light animal food at dinner. In a very few instances I have found benefit derived from their taking one, or even two, glasses of wine, diluted with water, after dinner; but wine is generally improper.

I have known of no medicine which has been of permanent and substantial use in phthisis; but I have sometimes found a good deal of temporary advantage derived from myrrh, from ammonia, and from light bitters united to the acetic acid. The frequent repetition of blisters, or a seton

inserted under the skin in some part of the chest, are occasionally of considerable use.

Of Hydrothorax.—When dropsy of the chest does not depend upon any diseased structure of the heart or lungs, I have found it much more readily affected by medicine than ascites or dropsy of the ovarium. Not unfrequently, under these circumstances, I have known water of the chest relieved, or for a time cured, by medicine.

The medicine which I have found most beneficial, has been mercury combined with squills and digitalis. Five grains of the pilula hydrargyri, combined with one grain of the dried powder of squills, and half a grain of the dried powder of digitalis, given twice or thrice a-day, have, in many cases under my care, either very much mitigated, or for a time removed the disease. There has been some advantage from the mercury affecting slightly the salivary glands. Squills and digitalis are by themselves much less efficacious than when combined with mercury.

I do not recollect one instance of hydrothorax being permanently cured, although I remember a good many cases in which the symptoms were repeatedly removed by the same means in the same patient.

Where the difficulty of breathing has been very great, and the legs and thighs have been much swelled from anasarca, I have known much relief afforded by a scarificator and small cupping-glass being applied above the inner and outer ankle of each leg; and I do not remember any mortification attacking these small sores. The difficulty of breathing in such cases probably depended in part upon the water accumulated in the cellular membrane of some parts within the chest, and this was gradually emptied through the small openings made in the skin of the legs.

Of Palpitation of the Heart.

Palpitation of the heart may take place at any period of life; but it is more common at an early period than any other—as, for instance, from fifteen to twenty-five years of age. Perhaps, too, it may be more common in females than in males; but of this I am not very certain. At an early period of life, it does not in general depend upon any diseased structure of the heart, but either on a morbid irritability of the nerves of this organ, or upon some imperfect state of digestion. When it takes place from either of these causes, it always continues for a long time, (often, more or less, for two or three years,) but at length generally subsides. Rest of body and quietness of mind are two of the chief means which contribute to remove this disease. All quick motion of the body, and more especially walking up ascents, increases the complaint, and should as much as possible be avoided. Every thing which tends to excite or harass the mind has the same effect, and should be shunned whenever it is possible. To rest of body and mind should be joined very temperate diet; and, when this general plan of management has been continued for many months, or perhaps for a year or two, the disease usually subsides. Digitalis has sometimes been useful in mitigating this complaint, but frequently it produces no good effect.

Where the palpitation depends, either altogether or chiefly, upon the state of the stomach, it is gradually removed by temperance, by improving the condition of the stomach, and by keeping the bowels free from costiveness. I remember one case in which palpitation of the heart had taken place, and had continued for six months, in consequence of gout having attacked this organ. In this case the palpitation ceased suddenly and entirely when the gout attacked one of the feet in a full and decided form. This person is now alive, and has continued generally in good health, although it be nearly twenty years since the attack of palpitation.

In young persons, palpitation depends upon an enlargement of the several cavities of the heart, produced not unfrequently by rheumatism attacking this organ. This cause of enlargement of the heart was overlooked by the physicians of this country, till it was discovered by the sagacity of my esteemed friend, the late Dr. David Pitcairn. The enlargement, in general, goes on increasing till life is destroyed; but I have known two cases where the enlargement stopped at a certain point, the increased action of the heart in a great measure subsided, and the patients acquired a tolerable share of health. They are both now alive, and they have the prospect of living, with care, to the ordinary term of life. Such a fortunate issue is very rare; but the disease may be generally retarded in its progress by much rest of body, quietness of mind, and a very temperate mode of living. Wine and every other fermented liquor should be avoided; and the patients, under such circumstances, should live almost entirely upon vegetable food.

At the middle and more advanced periods of life, palpitation of the heart often depends upon a diseased structure of some of its valves. This condition of the heart does not admit of any remedy, but must gradually become worse, until life be extinguished. But the symptoms may be mitigated, and the progress of the disease retarded, by little exertion of the body, by great temperance, and by a few ounces of blood being occasionally taken from the arm.

Angina Pectoris.—This distressing disease almost constantly depends upon an ossification of the coronary arteries of the heart, and admits of no effectual relief from medicine. I have met with two cases, however, in the course of my medical experience, in which symptoms exactly resembling those of angina pectoris depended upon an imperfect digestion; and the patients ultimately recovered entirely, by correcting the disordered condition of the stomach.

(TO BE CONTINUED.)

Colica Pictonum.—There are various modes of treating this complaint, adopted in different countries. Calomel and opium are often resorted to in England—leeches in France, especially by the school of Broussais, while the peculiar treatment at *La Charité* is well known. M. Rauque, of Orleans, has published a new method of treatment, which he calls very simple—simple certainly in principle—but most complicated in the means. It is

neither more nor less than extensive counter-irritation to the abdomen and loins, by means of a plaster composed of nearly twenty ingredients, the only active articles of which are, tartarized antimony and the lytta. The professor in question considers the disease as a decided neuralgia, seated originally in the solar plexus, and radiating thence to various parts of the abdomen, through the medium of the splanchnic nerves. There is no great objection to this theory, since it is at least as plausible as the phlogistic hypothesis of the Broussaians. M. Rauque admits that the neuralgia is often complicated with phlogosis. The mode of treatment, by extensive counter-irritation, answers both indications, and was successful in upwards of three hundred cases.

While on this subject, we may observe that, for some time past, we have been in the habit of using an antimonial plaster instead of the antimonial ointment, wherewith to produce powerful counter-irritation. It is much more easily applied, and we think, much more effectual in the end. It is made by putting about four grains of tartarized antimony to each drachm of Burgundy pitch, and thus the quantity will be regulated by the extent of surface which it is desirable to cover with pustules. Three days is the usual time required. In some persons it will take effect nearly as soon as a blister; and it never requires more than three or four days to produce a close-set crop of pustules, which will keep discharging matter for several days afterwards. We recommend it to our brethren as a most important remedy in affections of the chest and other internal organs—in obstinate headaches of a neuralgic or inflammatory nature, and in various forms of gastrodynia and dyspepsia.—*Lond. Med. Chir. Review, Jan.* 1826.

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*M. Flourens on the Sense of Hearing and the Causes of Deafness.**—The author, from several experiments, concludes:—

1st. That the destruction of the tympanum and hammer do not materially affect the hearing.

2d. The removal of the stirrup weakens it considerably.

3d. The destruction of the membrane which covers the fenestrum ovale (the stirrup being still removed) weakens the auditory sense still more.

4th. The replacing of the stirrup restores to it some degree of energy.

5th. The rupture of the semicircular canals renders suddenly the hearing painful and confused, and causes, at the same time, a quick and violent agitation of the head.

6th. When the vestibule is exposed, there does not result any remarkable affection of the hearing.

7th. The partial destruction of the nervous expansion in the vestibule partially destroys the sense. The complete destruction destroys it entirely.

The part, therefore, most essential to the functions, is the nervous expansion of the vestibule; and strictly speaking, it is the only indispensable part,

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* Bulletin des Sciences Medicales.

the others merely contributing to the extension, the energy, and modifications of the function, or to the preservation of the organ.

In making a practical application of these experiments, there is one cause of immediate and absolute deafness apparent, namely, the destruction of the nerve or of its expansion in the vestibule; and there are several causes of dulness of hearing, such as the destruction of the stirrup, of the vestibulary orifices, and of the walls of the vestibule and semicircular canals.

The previous experiments of M. Flourens having shown that the sense of hearing is lost by the removal of the cerebral lobes, without any part of the ear being touched, it follows that the loss of the organ of sense is completely distinct from the loss of the organ of sensation; and as each of these species of deafness is attended by peculiar symptoms, we may hence be able to ascertain the part affected; and, having discovered the seat, may thence determine the comparative importance and severity of the disease.—*Anderson's Medical Journal.*

SURGERY.

M. Janson's Case of removing a large portion of the Scapula.—A female, employed in the manufactory of silk, aged forty-three, began, in 1819, to perceive a tumour in the posterior and middle portion of her shoulder-blade: it was immoveable, painful to the touch, and appeared fixed to the bone. In 1824, this tumour had acquired the size of a child's head, was hard, wrinkled, and had occupied all the bone, excepting its inferior border and the supra spinal fossa, and had extended itself to the highest part of the axilla, with an elongated and voluminous pedicle. It was moveable in all directions, and carried the arm with it in all the motions given to it. The portion of this swelling which was situated in the axilla, obliged the patient constantly to keep his arm elevated, and at a right angle with the trunk of the body. Violent pains, darting from the shoulder along the arm, were felt in the breast. At length, from want of sleep and indigestion, the patient had become emaciated, and was evidently sinking.

On the 4th of October, M. Janson attempted the removal of the tumour. He included it within two semi-elliptical incisions; dissected the edges of the wound, so as to preserve as much skin as possible, and detached the tumour in every direction; then raising it, and the tumour breaking in the centre throughout its whole thickness, he removed the greatest part: cutting the attachment of the trapezius, of the supra and infra spinatus muscles, he discovered that all that portion of the scapula situated above its spine was in a healthy condition; and separating by the saw the diseased part of the bone, he thus preserved the articulation of the arm. Finally, laying bare that portion of the tumour situated in the axilla, by an oblique incision from below upwards, he dissected it, and drew it upwards carefully; the cellular tissue which fixed it to the arm gave way, and he succeeded in removing it entirely. All the vessels were then tied; the axilla

properly supported by a plug; and the edges of the wound, which was six inches across and nine in length, were brought together with sticking-plaster.

For a few days the success of the operation was doubtful, from causes affecting the general health; but these were calmed, and the patient quitted the hospital at the end of two months, nearly cured. On the 15th of March it was entirely healed, and the motions of the limb were becoming daily more free.—*Ib.*

MEDICAL JURISPRUDENCE.

Poisoning by Cantharides.—M. Julia Fontanelle has published a case of this kind, in a late number of the Revue Medicale, which we shall condense in this place. It is well known that idiosyncrasy of constitution greatly modifies the effects of poisons, as well as of their more gentle neighbours—medicines. Thus, Amoreux relates the case of a delicate lady, who swallowed three drachms of powdered cantharides, while one of her friends took, by way of encouraging her, a very small quantity of the same material. Contrary to expectation, the *former* suffered only some ardor urinæ, and heat about the throat, which were dissipated by mucilaginous drinks and camphor; while the *latter*, who had taken so much less of the medicine, was reduced to the door of death, and narrowly escaped with life. We shall now proceed to M. Fontanelle's case.

Case. Banot, a young man, about twenty years of age, of strong constitution, was attending on his master, who laboured under low fever, and was taking bark in wine every two hours. Banot, in mixing up the fourth dose, put, by mistake, a packet of powdered cantharides (half an ounce) into the glass of wine, instead of a paper of cinchona. His master, being disgusted with the three doses already taken of the bark and wine, obstinately refused to take any more, and the servant, by way of encouragement, quaffed off the potion himself. In a few minutes, he felt a severe ardor urinæ, burning pain in the throat, and pain in the head. To these symptoms succeeded vomiting. The cause of the accident being soon discovered, he was conveyed to the hospital, and placed under the care of Drs. Martin and Caffort, who immediately administered six ounces of sweet oil, and put him into a warm bath. By these means the symptoms were a little relieved, but the vomiting continued. Milk and mucilaginous fluids were given for drink and by way of lavement, while pills of camphor and nitre were prescribed. In the evening, or eight hours after the accident, there was bloody urine, with great ardor urinæ. Next morning there was less discharge of blood, but the ardor urinæ, with strong priapism, continued. The same treatment was employed as before. *Third day.* The vomiting was much abated, and all the other symptoms diminished in intensity. It was twelve or fourteen days before the patient was able to leave the hospital, which he did, quite cured.

It is doubtful whether the oil was useful or injurious. It is certain that it is a powerful solvent of the acrid principle of the cantharides.—*London Medico-chirurgical Review, Jan.* 1826.

Domestic.

Case of Hydrophobia successfully treated by Acetate of Lead. By Chas. Edward Smith, M. D. of Baltimore.—Phœbe Powell, a mulatto, aged 21, residing in High-street, O. T. called at the Baltimore General Dispensary, on Monday, January 23d, 1826, for medical aid: stating, that she had been bitten by a mad dog on the preceding Friday. On examination, I found the marks of teeth in two different places about the wrist. I made some inquiry respecting the dog, and ascertained that he had bitten a dog on the ear, and several other animals. The moment the dog was bitten, the part of the ear bitten was cut off, and some applications made which removed all danger of the disease. The supposed mad dog was then chased with a design of killing him, but escaped, and has not been heard of since.—From these facts, I had sufficient reason for supposing that the dog was really mad.

I had the wounds cauterised, and ordered five grains of calomel every three hours. They were afterwards dressed with poultices, and the same treatment continued. The last time I saw her before she was attacked with the disease, was on Monday, February 6th. She was at this time labouring under a profuse ptyalism. She said that she was going into the country, that she might have some person to attend to her whilst she was salivated. She complained of a tickling pain from the wound up to her shoulder, and soreness of her throat. I then impressed upon her the importance of continuing the calomel as before. On the next day, Tuesday, February 7th, I was sent for in great haste. The messenger stated, she had "fits." I found her much convulsed, which subsided in about a minute. In the interval, she was quite rational—but her countenance presented a most dismal aspect; the salivation which, on the day before, was so profuse, had now receded; her eyes were injected with blood; great pain in the head; excessive pain from the wound up to her shoulder, and down her back; a sense of suffocation; a tightness across the chest, with a rising to the throat; immoderate thirst, with difficulty of deglutition. At this time there was no dread of water, but she was exceedingly anxious; impatient of noise; her pulse hard and frequent; and an intolerance of any thing red. After waiting about thirty minutes another paroxysm came on, which we were warned of by great restlessness and the peculiar appearance of her eyes. In the convulsions the strength of the muscles was so great, that three men could with difficulty hold her. At times there was considerable foaming at the mouth, and it was almost impossible to keep her hands out of her mouth; and when they attempted to prevent her, she endeavoured to bite those who were holding her.

It was found necessary, for the personal safety of the attendants, to put a pillow over her mouth during the paroxysm, which she would bite with convulsive eagerness. After a paroxysm she seemed dull and heavy. She

was not aware of her convulsions, and great care was taken lest she should hear of them. I made particular inquiries of the family, whether she had been alarmed, and was informed she had not. She had not even been talking of the subject for some days back; and then she told her uncle that a person bitten at this season of the year was in no danger of the disease; and that some doctor told her, that as she was salivated, there was nothing to fear; and it would seem there was no apprehension on her part. On inquiring how the first paroxysm came on, I was informed, she was sewing and complained of head-ache, and in a few minutes fell from the chair convulsed: during this convulsion she at one time barked like a small dog, then howled like a hound; which circumstance did not occur in any succeeding paroxysms. I waited till I had seen three paroxysms. I was then convinced it was canine madness, (hydrophobia)—a combination of symptoms, by which the disease is most usually attended, being fully apparent; and strengthened also by the circumstance of her having been bitten by a dog, which, at the time, was believed to be mad. I then determined to administer the lead to the greatest extent I possibly could with safety to the patient; having seen a favourable report of the use of the lead in one of the daily papers of this city, last fall. In the mean time, I bled her *ad deliquium;* immediately on recovering from her faintness, she had a paroxysm as violent as any preceding. I then ordered a teaspoon full of laudanum, and gave directions to the attendants to get the acetate of lead; which directions were neglected, and the laudanum was given every three hours through the night. At the time I left her, the paroxysms returned about every thirty minutes.

On the next day, Wednesday, February 8th, I found her much worse, having paroxysms every fifteen minutes; and her thirst very great; and all the symptoms increased to a very violent and alarming extent. I determined to give of the acetate of lead (sugar of lead) 10 grains every 30 minutes. As the dose was enormous, and the frequency of administering it unprecedented, I remained with her all that day, that I might watch its effects, and avert any disagreeable consequences that might result from the use of the medicine. The disease gradually increased in violence until towards night, when the limbs became partially paralyzed. At one time she had three paroxysms in the space of fifteen minutes. There was an evident effect produced in drinking water. In the afternoon, in the presence of several physicians, I handed her water in a tin cup; in the act of swallowing it, a spasm was produced in the throat; she bit the cup and held it so fast between her teeth, that it was with considerable difficulty I could extricate it from her. About 5 o'clock P. M. the violence of the paroxysms began to subside, nor did they occur so frequently; she had not slept or taken any food.

Thursday, 9th, 11 o'clock A. M. She continued to improve, and the same treatment was continued. 5 o'clock P. M.—she was not as well as in the morning, and refused to take the medicine, as it made her sick. Goulard's

solution (a preparation of lead) was substituted in the dose of 100 drops every thirty minutes.

Friday, 10th, 11 o'clock A. M. She had much improved, the symptoms subsiding rapidly, but she had not slept nor eaten any thing since her attack. The acetate of lead was given as before, and Goulard's solution discontinued. At 5 o'clock P. M. there was no material change since the morning; nor the limbs completely paralysed. I then ordered a blister to be applied, and dressed with an ointment made of two drachms of the acetate of lead, and one ounce of simple cerate; the other medicine to be continued.

Saturday, 11th, 11 o'clock A. M. Last night (for the first time) she slept well, only having one paroxysm, which was at 11 o'clock in the night. This morning she breakfasted with appetite; the lead ointment had the desired effect, and completely paralysed the limb to which it was applied. 5 o'clock P. M. No return of the paroxysms; she slept through the day, and took nourishment freely. She complained most of the pain in her head and stricture across the chest; bowels constipated; tongue brown; considerable fever; pain in the stomach. Ordered an ounce of Epsom salts, and if it should not operate in three hours, the dose to be repeated. The lead was now discontinued, and the blister ordered to be dressed with simple cerate.

Sunday, 12th, 11 o'clock. Continued to improve; the medicine operated freely; fever abated; tongue not so brown; no medicine required.

Wednesday, February 22d. The patient was now walking about the house; the paralysis relieved; occasionally she was ordered small doses of laudanum, and the Epsom or Glauber salts, with the view of keeping the bowels open and carrying off the effects of the lead. She complained of head-ache and pain across the chest. I ordered her to be bled, and an ounce of Epsom salts; no other medicine required.

Friday, 24th. Did not complain, excepting general lassitude and fatigue; tongue clean; appetite good; slept well; pulse soft and natural; the blood-letting relieved the pain in the head and chest.

Remarks.—We have every reason to believe this woman is now cured of the above formidable disease. The lassitude and fatigue she at this time laboured under is a natural consequence of the severe shock her system received, from the very violent and repeated convulsions during the disease; and also from the immense quantity of lead she had taken, being 330 grains of the acetate, and 4 ounces of Goulard's solution, in four days; besides the application of the lead externally. From the experience I have had in this case, I am induced to believe, that the early application of lead externally, through the medium of blisters, would be more prompt and decided, as it may be observed from the foregoing report, that it was not until Friday that she became completely paralysed; and then only on the limb to which they were applied: and on that night the paroxysms ceased; she slept well, and eat heartily on the next morning; from which time she had

a rapid recovery. I am indebted to Dr. FONERDEN for the suggestion of introducing the lead externally, and I believe it to be an important point in the treatment of this disease; the object being to paralyse the patient, it is of great moment to do it *certainly*, *quickly*, and *safely*.

Baltimore General Dispensary, February 25th, 1826.

INTELLIGENCE.

MEDICAL SOCIETY OF THE STATE OF NEW-YORK.

The Annual Meeting of the MEDICAL SOCIETY OF THE STATE OF NEW-YORK was held at the Capitol, in the city of Albany, pursuant to the statute, on Tuesday, the 7th of February, 1826. The following Delegates were present—viz.:

JAMES R. MANLEY, *Pres. N. York.*
T. ROMEYN BECK, *Vice do. Albany.*
PLATT WILLIAMS, *Sec. Albany.*
JONATHAN EIGHTS, *Treas. Albany.*
LAURENS HULL, *Oneida.*
ELIAL T. FOOTE, *Chatauque.*
DANIEL AYRES, *Montgomery.*
PETER WENDELL, *Albany.*
JOHN VAN NAME, *Rensselaer.*
J. B. BECK, *Col. Ph. & Sur. N. York*
JOSHUA CONVERSE, *Schoharie.*
TRUMAN B. HICKS, *Warren.*
DELOS WHITE, *Otsego.*
HENRY VAN HOVENBURGH, *Ulster.*
WILLIAM BAY, *Albany.*
HORATIO ORVIS, *Jefferson.*
AMOS BOTSFORD, *Greene.*
JAS. MCNAUGHTON, *Col. Phys. and Surg. Fairfield.*
JAMES STEVENSON, *Washington.*
THOMAS G. EVANS, *Orange.*
IRA H. SMITH, *Cayuga.*
HARVEY W. DOOLITTLE, *Herkimer.*
CAMPBELL WALDO, *of Cayuga.*
JOHN LYNDE, *of Cortland.*
ROBT. COLLINS, *of Rensselaer.*

The following gentlemen were chosen Officers for the ensuing year:

Dr. JAMES R. MANLEY, *President.*
— T. ROMEYN BECK, *Vice-President and Librarian.*
— PLATT WILLIAMS, *Secretary.*
— JONATHAN EIGHTS, *Treasurer.*

CENSORS

Southern District.
Dr. FELIX PASCALIS,
— CHARLES DRAKE,
— JOHN B. BECK,

Middle District.
— WILLIAM BAY,
— PETER WENDELL,
— J. MCNAUGHTON,

Eastern District.
— JOHN H. STEEL,
— DANIEL AYRES,
— JAMES STEVENSON,

Western District.
— ALEX. COVENTRY,
— LAURENS HULL,
— LUTHER GUITEAU,

Committee of Correspondence.
Dr. H. W. DOOLITTLE,
— ELIAL T. FOOTE,
— DELOS WHITE,
— IRA H. SMITH,
— H. VAN HOVENBURGH,
— SAMUEL FREEMAN,
— TRUMAN B. HICKS,
— THOMAS G. EVANS,

Committee on Prize Dissertations and Questions.
— JOHN B. BECK,
— PETER WENDELL,
— T. ROMEYN BECK,
— CHARLES DRAKE,
— JAS. R. MANLEY,

JOHN WATTS *of New-York*, and DANIEL AYRES *of Montgomery County*, were elected Permanent Members.

The following gentlemen were nominated as Honorary Members:

JOSEPH LOVELL, M. D. *Surgeon General, Washington.*
JOHN LIZARS, *Fellow of the Royal College of Surgeons, Edinburgh.*
Dr. JOHN ONDERDONK, *New-York.*
JOSEPH BLOODGOOD, M. D. *Queens County.*

The following gentlemen have been Licensed by the Censors during the year 1825:—1. ANANIAS M. BREWSTER, of New-York (State); 2. JOSEPH NICHOLS, of Montreal; 3. LUCIUS HYDE, of Rensselaerville; 4. JOHN S. W. PARKIN, of New-London; 5. SANFORD R. KNAPP, of New-York (State); 6. B. GUERNSEY, of New-York (State); 7. JAMES HUBBEL, of Yorktown, Dutchess County; 8. HENRY VAN ANTWERP, of Albany; 9. ASA J. BUDDOCK, of Franklin County (Mass.); 10. SAMUEL W. DENTON, of Wallkill, Orange County.

UNIVERSITY OF THE STATE OF NEW-YORK.

College of Physicians and Surgeons of the Western District.—The Regents of the University on the 25th of January, 1826, conferred the degree of Doctors of Medicine on the following gentlemen, graduates of the College of Physicians and Surgeons, Fairfield, who had read and defended Theses on the subjects mentioned below.

1. Benjamin B. Armitage, of Oneida county—*On the Improvement of Medicine.*
2. Erasmus D. Barney, of Saratoga county—*On Dysentery.*
3. Levant B. Cotes, of Otsego county—*On Empiricism.*
4. Forester Dexter, of Jefferson county—*On the Effects of Habit on the Body and Mind.*
5. Charles Drake, of Herkimer county—*On the Blood.*
6. Luther Guiteau, jun. of Oneida county—*On Cold, and its Effects on Wounded Arteries.*
7. Fitch Howes, of Otsego county—*On Phthisis Pulmonalis.*
8. William W. Kidder, of Seneca county—*On Blisters.*
9. John A. Kinnicut, of Erie county—*On Strychnine and Brucine.*
10. Daniel Lee, of Chatauque county—*On the Epidemic Purulent Ophthalmia of the Western Country.*
11. D. K. McLallen, of Tompkins county—*On Tobacco.*
12. William Mather, of Herkimer county—*On Necrosis.*
13. Julius Rowley, of Schoharie county—*On Cancer.*
14. Elijah Sedgwick, jun. of Oneida county—*On Pain.*
15. Parker Sedgwick, of Oneida county—*On Sulphate of Quinine.*
16. William B. Sprague, of Saratoga county—*On Animal Heat.*
17. William Van Zandt, of Georgia—*On Sensation and Motion.*
18. Loomis Warner, of Herkimer county—*On Opium.*
19. Samuel Wetmore, of Oneida county—*On Digestion.*

METEOROLOGICAL TABLE

FOR THE YEAR 1825.

Kept at the City Academy, Albany, by T. Romeyn Beck, M. D.

1825.	THERMOMETER. Mean temperature at 7 A. M.	Mean temperature at 2 P. M.	Mean temperature at 9 P. M.	Mean of all the observations.	Highest.	Lowest.	Great. month. range.	Greatest daily range.	WEATHER. Clear.	Cloudy.	Variable.	Snow (num. of days)	Rain (num. of days)	Rain—Total number of inches.	WINDS. North.	North-East.	East.	South-East.	South.	South-West.	West.	North-West.	Prevailing Winds.
January.....	22.51	30.06	25.16	25.91	40	6	34	25	6	14	11	3	2	..	6	..	..	4	10	4	1	6	South.
February...	23.35	32.17	27.64	27.72	44	3	41	21	8	16	4	5	3	..	4	2	..	4	4	2	4	8	North-West.
March.....	33.80	45.78	38.74	39.44	63	25	38	21	15	12	4	3	5	..	11	1	1	2	3	..	6	7	North.
April.....	42.13	57.87	48.90	49.63	72	29	43	30	12	9	9	..	5	..	9	..	1	2	5	1	5	7	North.
May.....	52.74	70.19	59.32	60.75	82	37	45	27	18	4	9	..	5	1–21	7	1	..	1	12	1	3	6	South.
June.....	66.30	80.10	71.53	72.64	98	57	41	23	19	6	5	..	7	5–78	3	..	..	4	11	2	5	5	South.
July.....	69.19	85.42	76 61	77.07	96	60	36	24	21	4	6	..	6	1–13	..	1	1	5	9	4	4	7	South.
August.....	65.03	79.74	71 38	72 05	89	55	34	26	20	6	5	..	9	6–43	..	2	..	5	6	1	1	11	North-West.
September..	54.63	67.43	59.06	60 37	77	41	36	24	10	10	10	..	6	0–97	2½	2	1	4½	5½	1	1	5½	North-West.
October....	48.03	58 41	51 93	52 79	79	29	50	23	13	10	8	..	6	4–91	4	1½	..	6	8½	1½	3½	6	South.
November..	32.50	43 20	35.83	37.17	58	17	41	22	13	9	8	2	2	1–48	4½	3½	..	2½	7½	3½	3	5½	South.
December...	27 29	33.35	29.64	30 09	48	–6	54	20	11	12	8	3	4	2–31	4½	..	..	6	6	..	4	3½	South-West.

RESULTS

Mean temperature at 7 A M.....	44 79
Mean temperature at 2 P	56.97
Mean temperature at 9 P. M...	49 64
Mean temperature of the year 1825, according to the above observations...	50.46
Highest during the year	98
Lowest during the year.....	-6
Greatest daily range	30
Greatest monthly range.....	54
Greatest annual range	104

WEATHER.

Clear number of days	166	
Cloudy	112	
Variable	67	
Rain, number of days on which it fell....	59	
Snow, do.	16	
Rain-guage for the last 8 months,	24 inches	22 100

WINDS.

North, number of days	60½
North-East.....	14
East	4
South-East	46
South	87½
South-West	36½
West.....	45
North-West	77½
	365

QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *The Study of Medicine.* By JOHN MASON GOOD, M.D. F.R.S. F.R.S.L. &c. In 5 volumes. Fourth American Edition. Reprinted from the last London Edition, greatly improved and enlarged. Boston, 1826.

The fact of four editions of this celebrated work having been published in this country since 1823, exhibits in a most striking point of view the high estimation in which it is held on this side of the Atlantic. It is with much satisfaction we learn, that it is superseding, in every direction, the "Modern Practice of Physic" of Dr. Thomas. This is as it should be, and is creditable to the taste as well as to the discrimination of the American medical public.

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2. *The North American Medical and Surgical Journal.* Conducted by HUGH L. HODGE, M.D.—FRANKLIN BACHE, M.D.—CHAS. D. MEIGS, M.D.—B. N. COATES, M.D. and R. LA ROCHE, M.D. No. I. January 1826. Philadelphia. Quarterly.

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3. *The Elements of Medical Chemistry: embracing those branches of Chemical Science which are calculated to illustrate or explain the different objects of Medicine; and to furnish a Chemical Grammar to the Author's Pharmacologia.* Illustrated by numerous Engravings on wood. 8vo. By JOHN AYRTON PARIS, M.D. &c. New-York, 1825.

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4. *A Grammar of Chemistry, adapted to the use of Schools and private Students, by familiar illustrations and easy experiments.* By J. L. COMSTOCK, M.D. With numerous Engravings on wood. Second Edition. 12mo. Hartford, 1825.

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5. *Transactions of the Medical Society of the State of New-York for the year* 1826. (See Intelligence.)

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6. *The American Journal of Sciences and Arts.* Conducted by BENJAMIN SILLIMAN, Professor of Chemistry in Yale College, &c. No. 22. February 1826. (In Exchange.)

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7. *Journal of the Philadelphia College of Pharmacy.* No. I. for December 1825.

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8. *The Medico-Chirurgical Review.* Conducted by associated Physicians and Surgeons, and Superintended by JAMES JOHNSON, M. D. Nos. 19 and 20. New-York. Published by S. C. Schenk.

Our object in noticing these reprints, at the present time, is to bear witness to the improved typographical appearance which they have assumed under the direction of the present proprietor. Of the value of Dr. Johnson's periodical labours we have before had occasion to speak; and we have only to hope that Mr. Schenk will be liberally rewarded for his spirited exertions in diffusing them among the profession in this country.

New-York City Dispensary.

With much pleasure we publish the following notice. We hope most sincerely, that this very useful institution may receive that extensive patronage to which it is so justly entitled.

The Trustees of the New-York City Dispensary give notice, that in consequence of the number of applicants, and the present limited accommodations, the diseases of out-door patients will be divided into separate classes, and attended to in the following order:

Surgical diseases, from 9 A. M. to 10 A. M. by Drs. Weed and J. C. Arnold.

Diseases of Head and Chest, from 10 A. M. to 11 A. M. by Drs. J. I. Graves and S. V. R. Ten Broeck.

Abdominal diseases and complaints of Females, from 11 A. M. to 12 M. by Drs. W. Murray and D. L. M. Peixotto.

Diseases of Eye and Ear, from 12 M. to 1 P. M. by Drs. B. Ogden and P. Forrester.

Diseases of Skin, &c. from 1 P. M. to 2 P. M. by Drs. M. Willett and C. Wright.

JOHN WATTS, *President.*

J. I. GRAVES, *Secretary.*

TO READERS AND CORRESPONDENTS.

1. The following notice has been received from Dr. T. Romeyn Beck, of Albany, and is published at his request:

"In preparing the '*Elements of Medical Jurisprudence*' for the press, the attention of the author was necessarily directed to the very interesting controversy excited in Great Britain, in consequence of the trial of Mr. Angus. He was favoured with the perusal of a copy of the '*Vindication of the Medical Witnesses for the Crown*,' on that trial, and ventured to speak of it in terms which its merits appeared to deserve. From information on which he supposed that he could rely, he stated the author of it to be Dr. Bostock, late of Liverpool and now of London. By a letter, however, with which he has lately been favoured from John Rutter, M. D. of Liverpool, it appears that he has been misinformed, and he hastens to correct his involuntary error. He is authorized to state, that the authorship of the above pamphlet is with Dr. Rutter; and the references, therefore, in pages xiii, 149, 150, 207, of the 1st volume of the '*Elements*,' should be altered accordingly."

2. The press of matter in the present number has unavoidably excluded several articles on hand. They shall be duly noticed in our next.